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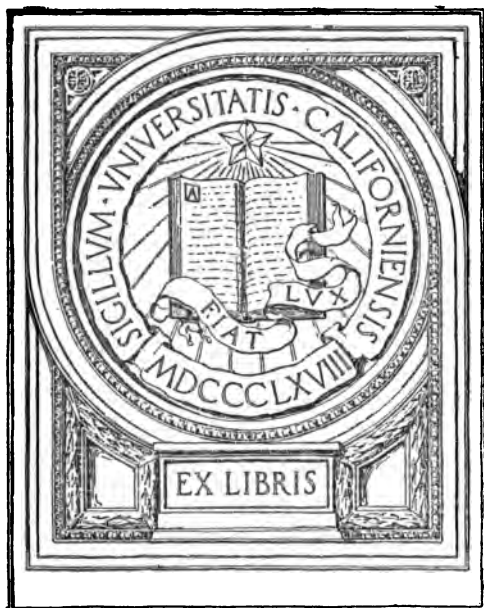
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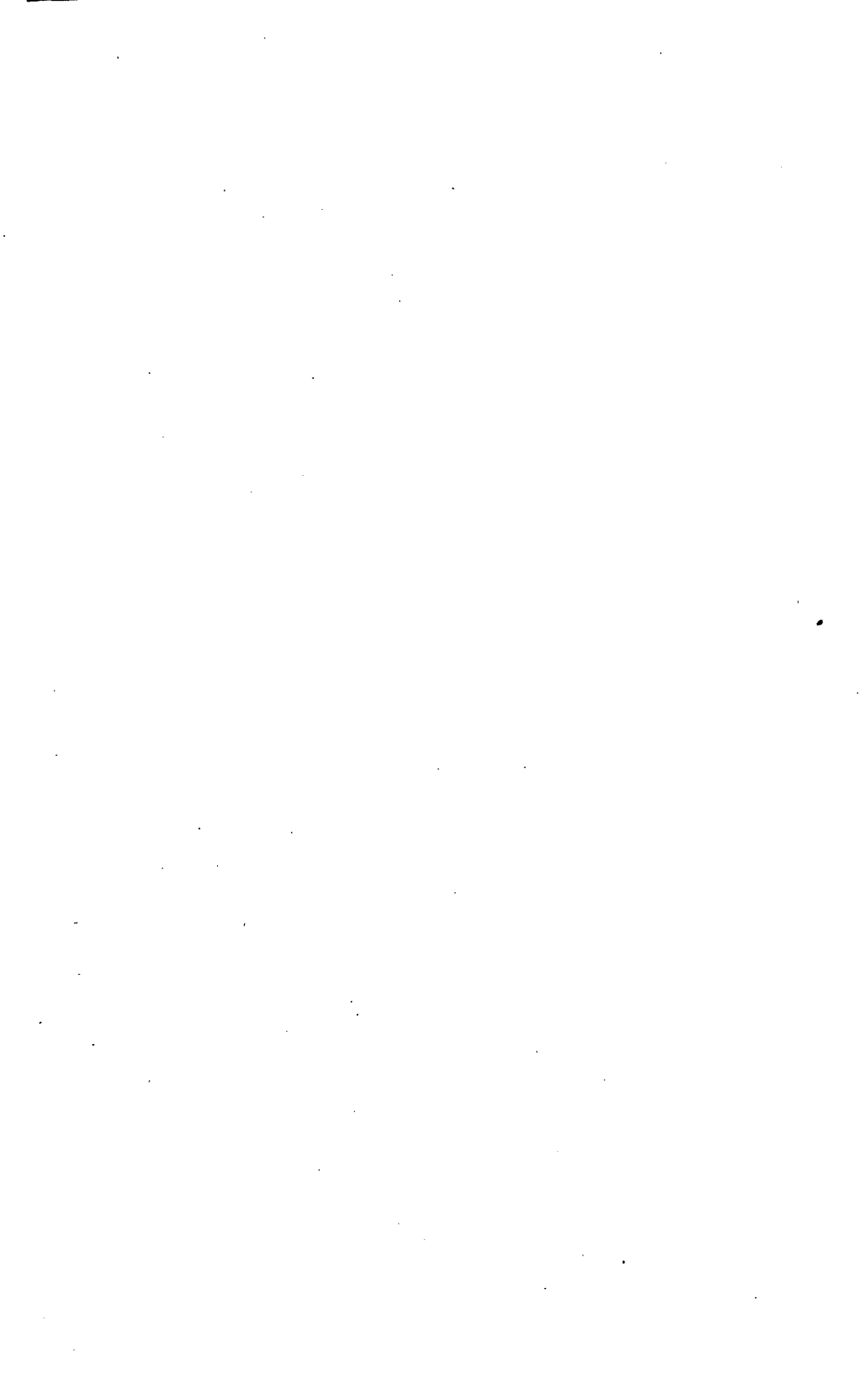


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THE OHIO RIVER

CHARTS, DRAWINGS, AND
DESCRIPTION OF FEATURES
AFFECTING NAVIGATION

WAR DEPARTMENT RULES AND REGULATIONS
FOR THE RIVER AND ITS TRIBUTARIES

NAVIGABLE DEPTHS AND TABLES OF DISTANCES
FOR TRIBUTARIES

COMPILED UNDER DIRECTION OF
THE CHIEF OF ENGINEERS, UNITED STATES ARMY

AND

THE DISTRICT ENGINEER, FIRST DISTRICT
CINCINNATI, OHIO

By R. R. JONES

*Chief Assistant Engineer, United States Engineer Office
First District, Cincinnati, Ohio*

1916

REVISED TO MARCH 31, 1920

IN THE UNITED STATES ENGINEER OFFICE, FIRST DISTRICT, CINCINNATI, OHIO
AND THE OFFICE OF THE CHIEF OF ENGINEERS, U. S. ARMY



DEPARTMENT OF
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1920

THE OHIO RIVER.

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THE OHIO RIVER

PHYSICAL CHARACTERISTICS.

Length from junction of Allegheny and Monongahela Rivers to Mississippi River.....	968.5 miles.
Drainage area.....	203,900 square miles.
Total fall, surface of pool at Pittsburgh to low-water surface of Mississippi River at Cairo.....	429.4 feet.
Slope per mile at low-water stage, average:	
Pittsburgh, surface of pool, to Wheeling, 90 miles.....	12.3 inches.
Wheeling to Cincinnati, 378.5 miles.....	5.7 inches.
Cincinnati to head of Falls at Louisville, 133 miles.....	2.5 inches.
Falls of the Ohio River, 3 miles.....	8 ft. 8 inches.
Foot of Falls to Cairo, 364 miles.....	between 3.4 and 3.5 inches.
Width between banks:	
Varies from about 890 feet at a point 105 miles below Pittsburgh to about 5,910 feet at a point 946 miles below Pittsburgh and 22.5 miles above the mouth of the river.	
Lowest and highest water and range of floods: ¹	

Localities.	Lowest water.		Highest water.		Range between lowest and highest water.
	<i>Fect.</i>		<i>Fect.</i>		<i>Fect.</i>
Pittsburgh, Pa.....	-1.3	Sept. 28, 1881	35.5	Mar. 15, 1907	36.8
Wheeling, W. Va.....	-0.3	Aug. 27, 1893	52.1	Feb. 7, 1884	52.4
Parkersburg, W. Va....	0.0	Oct. 30, 1879	58.9	Mar. 29, 1913	58.9
Cincinnati, Ohio.....	1.9	Sept. 17, 1881	71.1	Feb. 14, 1884	69.2
Madison, Ind.....	2.5	Oct. 7, 1904	62.8	Apr. 1, 1913	60.3
Louisville, Ky.....	1.7	Sept. 10, 1881	46.7	Feb. 15, 1884	45.0
Cairo, Ind.....	-1.0	Dec. 24, 1871	54.8	Apr. 4, 1913	55.8

Discharge:

Low water—

At head of River (Pittsburgh).....	cubic feet per second...	² 1,600
At mouth of river (Cairo).....	do.....	² 27,500

Flood—

At head of river (Pittsburgh).....	do.....	³ 440,000
At mouth of river (Cairo).....	do.....	² 1,500,000

¹ Weather Bureau reports. ² Estimated. ³ Measured.

Slack-water navigation with a least depth of about 9 feet is now (March, 1920) available throughout the year (except in times of running ice) to Dam No. 22, near Ravenswood, W. Va., a distance of 220.1 miles. Below that point, except as modified by the pools of Dams Nos. 24, 26, 28, and 29, the minimum depth at extreme low water will not exceed 1.3 feet¹ to Ashland, Ky., a distance of 101.9 miles; from Ashland, Ky., to Cincinnati, Ohio, a distance of 146.5 miles, the minimum depth at extreme low water will not exceed about 2.3 feet, except as modified by the pools of Dams Nos. 31, 35, and 37. From Cincinnati, Ohio, to Fernbank, Ohio (Dam No. 37), a distance of 12.8 miles, there will be a depth of not less than 9 feet with Dam 37 up, or 3.5 feet with dam down; from Fernbank, Ohio, to Madison, Ind., a distance of about 74.2 miles, there will be a minimum low-water depth of about 2.9 feet;² from Madison, Ind., to foot of canal at Louisville, Ky., a distance of about 48.7 miles, the present pool of Dam No. 41 will afford a depth of more than 9 feet throughout. From the foot of the canal at Louisville, Ky., to Paducah, Ky., a distance of about 319.9 miles, there will be a minimum low-water depth of 1.9 feet.³ This stretch of river contains a number of bars which are high at the beginning of the low-water season, but which quickly scour away. Such bars may be encountered at Scuffletown, French, and Flint Islands, Sisters, and Cottonwood. It is believed, however, that under the least favorable conditions the depths over these bars will be greater than the 2.3 feet noted above. From Paducah, Ky., to the junction of the Ohio and Mississippi, below Cairo, Ill., a distance of about 44.4 miles, the extreme low-water depth will be about 3½ feet, except as sometimes temporarily modified by the bars at Mosleys Crossing at head of Grand Chain and Mound City, Ill., a few miles above Cairo.

¹ Over sill of navigable pass, Dam No. 23.

² Over Lawrenceburg, Ind., bar.

³ Over sill of navigable pass, Dam No. 44.

Data determined by Ohio River board concerning new locks and dams.

[Revised to Mar. 31, 1920.]

Dam No.	Bank for lock.	Miles below Pittsburgh.	Length of navigable pass.	Elevation of—		Depth over pass sill.		Depth over lock sill.	
				Upper pool.	Pass sill.	From surface of upper pool.	At low-water stage.	From surface of lower pool.	At low-water stage.
* 1	Pennsylvania, right...	4.7	<i>Fect.</i> 549	<i>Fect.</i> 703.0	<i>Fect.</i> 660.9	<i>Fect.</i> 12.1	<i>Fect.</i> 0.7	<i>Fect.</i> 9.5	<i>Fect.</i> 1.2
x 2	do.....	6.1	(1)	703.0	(1)	(1)	(1)	13.0	8.9
* 3	Pennsylvania, left...	9.0	700	699.9	683.1	16.8	0.3	9.5	0.8
* 4	Pennsylvania, right...	10.9	700	692.1	675.4	16.7	1.5	9.5	2.0
* 5	do.....	18.6	700	694.4	667.8	16.6	0.7	9.5	1.2
* 6	do.....	22.9	700	676.8	661.3	15.5	2.1	9.0	1.1
* 7	do.....	28.8	608	668.8	655.3	13.0	0.4	11.0	4.1
* 8	Pennsylvania, left...	36.9	600	662.6	647.2	15.4	2.5	11.0	5.0
* 9	West Virginia.....	48.1	700	655.7	640.3	15.4	2.5	12.0	5.5
* 10	do.....	55.6	600	649.3	633.9	15.4	1.4	11.0	4.4
* 11	Ohio.....	65.7	600	641.9	625.5	16.4	0.9	11.0	3.9
* 12	do.....	78.3	700	633.5	618.1	15.4	1.2	11.1	4.2
* 13	West Virginia.....	87.0	700	626.2	610.8	15.4	3.2	11.0	7.2
* 14	do.....	95.8	700	617.8	602.8	15.0	2.2	9.5	4.0
* 15	Ohio.....	113.8	600	610.5	594.1	16.4	1.3	11.0	4.2
* 16	do.....	128.9	600	602.2	586.8	15.4	1.5	11.0	4.9
* 17	do.....	146.4	600	594.4	579.0	15.4	1.6	11.2	5.2
* 18	do.....	167.4	700	586.6	571.2	16.4	2.3	11.0	6.1
* 19	do.....	179.3	700	578.4	563.4	16.0	1.6	11.0	3.8
* 20	West Virginia.....	191.4	688	572.2	555.3	16.9	2.0	11.0	3.8
* 21	do.....	201.7	600	564.5	549.1	15.4	1.6	11.0	4.7
* 22	Ohio.....	213.8	600	557.0	541.6	16.4	2.0	11.0	3.2
x 23	West Virginia.....	220.1	600	551.4	536.0	15.4	2.4	11.2	6.0
x 24	Ohio.....	230.6	600	543.6	528.2	16.4	1.3	11.0	5.0
* 25	do.....	242.0	600	535.5	520.1	15.4	1.5	11.0	4.1
x 26	West Virginia.....	260.0	600	528.5	513.1	15.4	1.7	11.0	6.3
* 27	do.....	278.0	600	519.5	502.6	16.9	2.7	11.0	4.3
x 28	Ohio.....	300.3	652	512.0	496.6	15.4	2.3	11.1	4.4
* 29	do.....	310.9	700	505.6	490.2	15.4	1.8	11.0	4.5
* 30	Kentucky.....	319.4	700	498.5	483.1	15.4	1.7	11.0	5.3
* 31	do.....	338.9	700	490.5	475.1	15.4	2.6	11.0	5.7
* 32	do.....	353.4	700	483.0	467.6	16.4	2.4	11.0	5.5
* 33	do.....	381.7	700	475.5	460.1	15.4	2.6	11.0	5.7
x 34	do.....	404.0	780	468.0	452.6	15.4	2.4	11.0	5.0
x 35	Ohio.....	432.8	700	461.0	445.6	15.4	2.3	11.0	3.5
* 36	Kentucky.....	449.7	700	455.4	440.0	15.4	2.8	11.0	4.8
x 37	do.....	459.2	700	449.0	435.0	14.0	2.6	11.1	7.6
* 38	Ohio.....	481.3	900	441.1	425.3	15.8	3.5	11.0	6.5
x 39	Kentucky.....	501.8	700	433.3	417.9	15.4	3.8	11.0	6.7
x 40	Indiana.....	529.6	800	426.0	410.6	15.4	3.1	11.0	6.7
/ 41	do.....	553.6	700	418.0	402.6	15.4	3.4	11.0	5.0
x 42	Kentucky.....	604.0	648	418.0	402.0	10.0	1.7	11.8	6.1
L	do.....	606.0	648	418.0	402.0	10.0	1.7	9.7	4.0
42	Eliminated.								
x 43	Indiana.....	630.2	900	383.0	366.1	16.9	2.3	11.0	5.4
x 44	do.....	660.3	800	374.0	358.1	15.9	1.9	11.0	6.0
x 45	Kentucky.....	699.7	900	365.0	349.6	15.4	2.4	11.0	7.0
/ 46	Indiana.....	748.5	800	356.0	340.1	15.9	1.7	11.0	5.8
/ 47	do.....	771.3	800	347.0	331.6	15.4	2.1	11.0	6.7
x 48	do.....	804.1	800	338.0	322.6	15.4	2.5	11.0	7.1
/ 49	Kentucky.....	830.5	800	329.0	313.6	15.4	2.9	11.0	7.5
/ 50	do.....	859.6	800	320.0	304.6	15.4	2.6	11.0	6.2
/ 51	do.....	878.0	800	312.0	296.6	15.4	2.4	11.0	7.0
/ 52	do.....	913.2	800	303.0	287.6	15.4	2.0	11.0	6.6
/ 53	do.....	946.0	800	294.0	278.6	15.4	2.5	11.0	5.1
/ 54	Illinois.....	962.4	800	287.0	271.6	15.4	2.0	9.7	9.7

NOTE.—The project for Ohio River locks and dams originally contemplated a total of 54; the addition of the Emsworth fixed dam increases this number to 55, but of these, Dam No. 42 has already been eliminated, and eventually (on completion of the Emsworth Dam) Nos. 1 and 2 will be discontinued and removed.

* Locks and dams in operation, 30.

x Locks and dams under construction, 16.

/ Locks and dams on which construction has not yet been commenced, 9.

E—Lock and dam at Emsworth, Pa.

L—Locks at Louisville & Portland Canal.

1 Fixed dam; no navigable pass.

NO WATER CONNECTION WITH THE GREAT LAKES.

Owing to the damaged condition of the Ohio Canal near Dresden, Ohio, and between that point and Cleveland, there is at present (Mar. 31, 1920) *no continuous water connection* between the Ohio River and the Great Lakes via the Muskingum River; other connections, such as those which formerly existed by way of the Beaver and Little Beaver, Scioto, Miami, and Wabash Valleys, have long since been obliterated.

OPEN RIVER NAVIGATION.

Navigability of the Ohio River, Pittsburgh, Pa., to Cairo, Ill.

[Being an average of the 20 years from 1900 to 1919, inclusive.]

	Davis Island Dam and Dam No. 6.	Wheel- ing, W. Va.	Parkers- burg, W. Va.	Cat- letts- burg, Ky.	Cincin- nati, Ohio.	Louis- ville, Ky. (lower gauge).	Evans- ville, Ind.	Padu- cah, Ky.	Cairo, Ill.
	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>
Under 3 feet.....	36.3	35.2	33.05	38.5	0.3	1.85	19	30.5	0.3
3 feet and over.....	328.9	330	332.15	326.5	364.9	363.35	346.4	334.7	351.7
6 feet and over.....	239.9	252.4	273.1	270.7	337.2	315.6	294	283.9	276.3

LOW-WATER PERIODS.

Considering the river as a whole, the low-water periods are likely to occur between July 1 and December 1, but this rule is not invariable, as low water may begin in April or May, to be followed by rather high stages in June, July, or August; also the fall rises sometimes begin in September and continue for the remainder of the season. The stages of the various sections of the river also vary without apparent regard to distance from headwaters—that is, some middle section like that between Cincinnati and Louisville may, and frequently does, maintain good boating stages after low-water periods have set in farther downstream.

Special information concerning gage readings can be obtained from the following sources:

	U. S. Weather observer at—
Pittsburgh, Pa., Dam No. 6, and Wheeling, W. Va.....	Pittsburgh, Pa.
Parkersburg, W. Va.....	Parkersburg, W. Va.
Catlettsburg, Ky., and Cincinnati, Ohio.....	Cincinnati, Ohio.
Louisville, Ky.....	Louisville, Ky.
Evansville, Ind.....	Evansville, Ind.
Paducah, Ky., and Cairo, Ill.....	Cairo, Ill.

NOTE.—See also table of important gages, page 242.

FLOODS.

High-water stages of 50 feet or more in the Ohio River at Cincinnati, Ohio, usually occur in February, but at least one stage above 60

feet occurred in December, 1847; one above 55 feet occurred as late as April 4, 1908; and one summer flood exceeding 55 feet occurred August 6, 1875. Taking into account the two isolated years, 1882 and 1847, and the 62 years of continuous record from 1858 to 1919, inclusive, the Ohio River at Cincinnati has reached flood stages as follows:

Over 50 feet and less than 55 feet, 31 times in 24 years (not consecutive).
 Over 55 feet and less than 60 feet, 19 times in 18 years (not consecutive).
 Over 60 feet and less than 65 feet, 7 times in 7 years (not consecutive).
 Over 65 feet and less than 70 feet, 2 times in 2 years (not consecutive).
 Over 70 feet and less than 72 feet, 2 times in 2 years (not consecutive).

Navigation during times of considerable flood (50 feet at Cincinnati) is attended by great danger and should not, as a rule, be undertaken without the guidance of an experienced Ohio River pilot. Not only is the headroom under bridges and overhead telegraph crossings greatly diminished, but the real river channel is often difficult to follow, especially during times of fog. At such times steamboats of large size have grounded in what proved to be cornfields at a considerable distance from the river channel.

RUNNING ICE, ICE HARBORS, ETC.

Running ice and gorges incident to same may occur during the months of December or January, but seldom after the month last named.

The ice gorges are at times extremely dangerous to craft within their direct influence, or even below, when the gorges give way. For the purpose of aiding navigation, the United States has constructed concrete ice piers at the following points: Middleport, Ohio, 251 miles below Pittsburgh; Gallipolis, Ohio, 269 miles below Pittsburgh; Maysville, Ky., 407.2 miles below Pittsburgh. Each pier consists of three sections rising to height of from 30 to 36 feet above low water. A boat sheltered behind such piers may safely withstand the break up and run out of the ice. Timber ice piers, controlled by private parties, are located at various points along the river, notably in the vicinity of Cincinnati and just below. Over these private piers the United States has no control, except to see that craft moored below them do not obstruct the channel.

Safe havens in time of running ice may be found, usually, in the mouth of Ohio River tributaries, etc., as follows:

	Miles below Pittsburgh.
Muskingum River	171.7
Little Kanawha River	184.2
Kanawha River	264.0
Kentucky River	543.4
Louisville & Portland Canal	601.9
Green River	778.7
Cumberland River	909.8
Tennessee River	922.0

In addition to the havens formed by ice piers and tributary streams there are many localities where sharp deflections in the trend of the

open river banks provide mooring grounds of comparative safety. Information concerning such natural havens can be given only by experienced Ohio River pilots.

DOCKS, MARINE WAYS, AND SMALL REPAIRS TO BOATS.

Boats may undergo repairs which require their being taken from the water at the following localities:

Monongahela River:

Dravosburg, Pa., floating dock.

Elizabeth, Pa., marine ways.

Wilson, Pa., marine ways.

Floreffe, Pa., marine ways.

Alicia, Pa., marine ways.

Crucible, Pa., floating dock.

Pittsburgh, Pa., smaller boats and barges may be repaired at two floating docks near Hazlewood Avenue.

Ohio River:

Point Pleasant, W. Va., three dry docks within mouth Kanawha River.

Madison, Ind., marine ways.

Louisville, Ky., United States dry dock, Louisville & Portland Canal.

Paducah, Ky., dry dock, also marine ways.

Mound City, Ill., marine ways.

In addition to the above, calking or other minor repairs *above water line* can be made at the following points: Pittsburgh, various firms; Marietta, Ohio; Antiquity, Ohio; Middleport, Ohio; Levanna, Ohio; Higginsport, Ohio; Jeffersonville, Ind.; New Albany, Ind.; Leavenworth, Ind.; Evansville, Ind.; Cave in Rock, Ill.

A large contracting and industrial establishment has two launching ways on Neville Island, and another has a large launching ways at Ambridge, Pa., all used exclusively on the construction of boats and barges.

Repairs to engines and boilers, purchase of rope, pipe, and fittings, and general boat supplies, including ice and meat, may be made at the following points: Pittsburgh, Pa.; Wheeling, W. Va.; Marietta, Ohio; Parkersburg, W. Va.; Point Pleasant, W. Va.; Huntington, W. Va.; Ashland, Ky.; Ironton, Ohio; Portsmouth, Ohio; Maysville, Ky.; Cincinnati, Ohio; Madison, Ind.; Jeffersonville, Ind.; Louisville, Ky.; New Albany, Ind.; Owensboro, Ky.; Evansville, Ind.; Henderson, Ky.; Paducah, Ky.; and Cairo, Ill.

FUEL.

Coal may be usually obtained at Pittsburgh, Pa.; Wellsburg, W. Va.; Bellaire, Ohio; Pomeroy, Ohio; Ashland, Ky.; Cincinnati, Ohio; Madison, Ind.; Jeffersonville, Ind.; Louisville, Ky.; New Albany, Ind.; Evansville, Ind.; Caseyville, Ky.; Paducah, Ky., and Cairo, Ill.

Gasoline may be obtained at all points named above and at many others of lesser importance.

CHARTS OF THE OHIO RIVER.

Charts of the Ohio River survey of 1911-1914, from Pittsburgh to the mouth, consisting of one index sheet (scale: 1 inch to 8 miles) and 280 charts (scale: 1 inch to 600 feet), each measuring over all 24 inches by 30 inches, may be purchased for 25 cents each at the United States Engineer Office, 425 Customhouse, Louisville, Ky., the free distribution thereof being held to be prohibited by act of Congress.

Payments must be made before charts are sent, and if made by mail, must be by *postal or express money order* payable to the order of United States District Engineer, Louisville, Ky.

A detailed descriptive list of these charts may be obtained without charge upon application to the Office of the Chief of Engineers, United States Army, Washington, D. C., or to the United States Engineer Office at Louisville, Ky.

**WAR DEPARTMENT RULES AND REGULATIONS GOVERNING THE
USE, ADMINISTRATION, AND NAVIGATION OF THE OHIO RIVER
AND ITS TRIBUTARIES.**

[Prescribed Oct. 20, 1919 (E. D. 15944/2062). The law—Sec. 7 of act of Congress approved Aug. 8, 1917.]

The term "lockmaster" as used in the following regulations shall be interpreted to mean the lockmaster or that one of the lock officials present who has authority to issue orders to the others or to vessels.

1. *Authority of lockmaster.*—The movement and position of all boats and floating craft of every description, while at or near the locks and dams and in canals, shall be subject to the direction of the lockmaster, whose orders must be obeyed in the operation and mooring of such boats and craft. Crews shall render such assistance in lockage of their craft as the lockmaster may require.

2. *Precedence at locks.*—Ordinarily the vessel arriving first at lock shall be first locked through; but precedence shall be given to vessels belonging to the United States and to vessels carrying the mails in the order named. Passenger boats shall have precedence over tows and like craft.

3. *Lockage of pleasure boats.*—The lockage of pleasure boats, house boats, or like craft will not be permitted to interfere with or to delay the lockage of commercial craft. Vessels not employed for commercial purposes will be entitled to lockage only at the end of each hour, but whenever a lockage is made for a commercial boat other craft may likewise pass through if there is room for them in the lock. Lockmasters shall have final decision as to whether a craft presenting itself for lockage is commercial or a pleasure boat.

4. *Order of lockage.*—Boats having any other craft in tow must accompany their tow through the lock whenever so directed by the lockmaster. Lockmasters may require tows requiring two or more lockages to permit other craft to pass after each lockage.

5. *Signals. Signal by vessel to lock.*—Vessels desiring lockage shall on approaching a lock give the following signals: One long blast of a whistle not to exceed 10 seconds, followed by one short

blast not exceeding 3 seconds, to be given at a distance of not more than three-quarters of a mile from the lock.

Signals from lock to vessel.—At locks provided with power the signal to enter the locks will be three short and distinct whistles given from the locks, and the signal to leave the locks will be one long whistle; at other locks the lockmaster in charge will indicate when a boat may enter or leave the lock.

6. *Stations while awaiting lockage.*—Descending boats while awaiting their turn to enter a lock shall lie at least 400 feet above the lock, and shall leave sufficient room for the passage of boats leaving the lock or those having precedence in entering. Ascending boats while waiting their turn to enter shall either tie up sufficiently far below the lock or keep out far enough to give free passage to a boat entering or leaving the lock.

7. *Rafts.*—Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock, and the sections for locking shall be brought to the lock as directed by the lockmaster in charge. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with boats privileged to pass through.

8. *Entrance to and exit from locks.*—In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in a lock. The boat that enters first shall have precedence in exit.

9. *Protection of lock gates.*—In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. Boats shall not be permitted to enter or start to leave until the lock gates are at rest within the gate recesses.

10. *Draft of vessels.*—No vessel shall attempt to enter a lock unless its draft is at least 3 inches less than the depth shown by the lock gauges as the least depth over the miter sills.

11. *Mooring in locks.*—All vessels when in the locks shall be moored in such manner as directed by the lockmaster. Steamboats and other craft in general shall be moored with bow, stern, and spring lines to the snubbing posts provided for that purpose. Tying to lock ladders is strictly prohibited.

12. *Unnecessary delay at locks.*—Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signaled to do so shall lose their turn. Boats arriving at the locks with their tows in such shape as to impede lockage shall lose their turn. Leaking boats may be excluded from the locks until they have been put in such condition that it is, in the opinion of the lockmaster, safe to pass them through.

13. *Damage to walls.*—The sides of all craft passing through any lock must be free from projections of any kind which might injure the lock walls. Steamboats must be provided with suitable fenders. One or more men, as the lockmaster may direct, shall be kept at the head of every tow until it has cleared the lock and guide walls, and shall protect the walls by the use of fenders.

14. *Handling machinery.*—At locks provided with power no one but employees of the United States will be permitted to move any

valve, gate, or other lock machinery. At locks operated by hand, the valves, gates, or other lock machinery will be operated only by or under the direction of employees of the United States. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

15. *Refuse in locks.*—The placing of ashes, refuse, or obstructions of any kind in the locks or on the walls thereof or in the canals or on the banks of canals is prohibited. The passing of coal from barges or flats while in the locks is prohibited.

16. *Damage to construction work.*—To avoid damage to plant and structures connected with the construction or repair of locks and dams, when passing such plant or structures, vessels shall reduce their speed to not exceeding 3 miles per hour, except that descending vessels need not reduce their speed below 3 miles per hour in addition to speed due to the current. This reduced speed must be maintained between a point 500 yards above the upper line of the work and a point below the lower line of the work.

17. *Trespass on lock property.*—Trespass on locks or dams or other United States property pertaining to the locks or dams is strictly prohibited. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefor. Any person committing a willful injury to any United States property will be prosecuted.

18. *Commercial statistics.*—Masters of vessels shall furnish in writing to lockmasters such statistics of passengers and cargo carried as may be required.

19. *Floods.*—Vessels navigating the Ohio River or any of its tributaries at flood stages will proceed at "slow speed" when passing habitations that are partially or wholly submerged, or in passing close to levees.

20. *Passing movable dams.*—When a dam is being raised or lowered all passing craft must use the lock until signaled that the pass is clear. Vessels desiring to wait to use the pass must remain above the head of the lock.

21. *Approach to movable dams.*—When dams are up all vessels in the upper pools not intending to enter locks are forbidden to approach nearer to the dams than a line extending across the river from the head of the upper guide wall unless authorized to do so by the lockmaster.

22. *Lights.*—When movable dams are up the following signals will be displayed from the river wall of the locks: Three green lights in a vertical line at head of river wall and two green lights in vertical line at foot of river wall. When the dams are down the following lights will be displayed from the river wall of the locks: Three red lights in a vertical line at head of river wall and two red lights in a vertical line at foot of river wall.

23. *Vessels to carry regulations.*—A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the Ohio River or any of its tributaries. Copies may be obtained from lock offices on request.

24. *Fishing prohibited.*—No fishing will be permitted from lock walls, guide walls, or guard walls of any lock.

25. *Penalty.*—The penalty for violating these rules and regulations is \$500 fine or not exceeding six months' imprisonment.

26. These regulations shall be in force and effect on and after December 31, 1919, and shall supersede all regulations heretofore issued for the Ohio River or any part thereof or for any of the tributaries of the Ohio River.

RULES FOR THE DISPLAY OF SIGNALS ON, AND THE OPERATION OF, ALL CRAFT AND ACCESSORIES WORKING ON WRECKS, ENGAGED IN DREDGING, SURVEYING, OR OTHER WORK OF IMPROVEMENT, AND THE USE AND NAVIGATION OF THE WATERS IN THE VICINITY.⁴

[Regulations prescribed Nov. 15, 1919, for the Great Lakes and their connecting and tributary waters as far east as Montreal, the Red River of the North, and the rivers whose waters flow into the Gulf of Mexico, and their tributaries. (E. D. 101107/23). The law—Sec. 7 of act of Congress approved Aug. 8, 1917.]

1. RULE FOR SIGNALS TO BE DISPLAYED BY A TOWING VESSEL WHEN TOWING A SUBMERGED OR PARTLY SUBMERGED OBJECT UPON A HAWSER WHEN NO SIGNALS ARE DISPLAYED UPON THE OBJECT WHICH IS TOWED.

The vessel having the submerged object in tow shall display by day, where they can best be seen, two shapes, one above the other, not less than 6 feet apart, the lower shape to be carried not less than 10 feet above the deck houses. The shapes shall be in the form of a double frustrum of a cone, base to base, not less than 2 feet in diameter at the center nor less than 8 inches at the ends of the cones, and to be not less than 4 feet lengthwise from end to end, the upper shape to be painted in alternate horizontal stripes of black and white, 8 inches in width, and the lower shape to be painted a solid bright red.

By night the towing vessel shall display the regular side lights, but in lieu of the regular white towing lights shall display four lights in a vertical position not less than 3 feet nor more than 6 feet apart, the upper and lower of such lights to be white, and the two middle lights to be red, all of such lights to be of the same character as is now prescribed for the regular towing lights.

2. RULE FOR STEAMERS, DERRICK BOATS, LIGHTERS, OR OTHER TYPES OF VESSELS MADE FAST ALONGSIDE A WRECK, OR MOORED OVER A WRECK WHICH IS ON THE BOTTOM OR PARTLY SUBMERGED, OR WHICH MAY BE DRIFTING.

Steamers, derrick boats, lighters, or other types of vessels made fast alongside a wreck, or moored over a wreck which is on the bottom or partly submerged, or which may be drifting, shall display by day two shapes of the same character and dimensions and displayed in the same manner as required by the foregoing rule, except that both the shapes shall be painted a solid bright red; but where more than one vessel is working under the above conditions the shapes need be displayed only from one vessel on each side of the wreck from which it can best be seen from all directions.

⁴ The designation "floating plant" as used herein includes dredges, derrick boats, snag boats, drill boats, pile drivers, maneuver boats, hydraulic graders, and survey boats.

By night this situation shall be indicated by the display of a white light from the bow and stern of each outside vessel or lighter not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they may best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart, and not less than 15 feet above the deck.

3. RULE FOR DREDGES WHICH ARE HELD IN STATIONARY POSITION BY MOORINGS OR SPUDS.

Dredges which are held in stationary position by moorings or spuds shall display by day two red balls not less than 2 feet in diameter and carried in a vertical line not less than 3 feet nor more than 6 feet apart and at least 15 feet above the deck house and in such a position where they can best be seen from all directions. By night they shall display a white light at each corner, not less than 6 feet above the deck, and in addition thereto there shall be displayed in a position where they may best be seen from all directions two red lights carried in a vertical line not less than 3 feet nor more than 6 feet apart and not less than 15 feet above the deck. When scows are moored alongside a dredge in the foregoing situation they shall display a white light on each outboard corner not less than 6 feet above the deck.

4. RULE FOR SELF-PROPELLING SUCTION DREDGES UNDER WAY WITH THEIR SUCTIONS ON THE BOTTOM.

Self-propelling suction dredges under way with their suction on the bottom shall display by day the same signals as are used to designate any steamer not under control; that is to say, two black balls not less than 2 feet in diameter and carried not less than 15 feet above the deck house and where they may best be seen from all directions.

By night they shall carry, in addition to the regular running lights, two red lights of the same character as the masthead light, in the same vertical plane and underneath the masthead light, the red lights to be not less than 3 feet nor more than 6 feet apart and the upper red light to be not less than 4 feet and not more than 6 feet below the white masthead light, and on or near the stern two red lights in the same vertical plane not less than 4 feet nor more than 6 feet apart, to show through 4 points of the compass; that is, from right astern to 2 points on each quarter.

5. RULE FOR VESSELS WHICH ARE MOORED OR ANCHORED AND ENGAGED IN LAYING PIPE OR OPERATING ON SUBMARINE CONSTRUCTION OR EXCAVATION.

Vessels which are moored or anchored, and engaged in laying pipe or operating on submarine construction or excavation, shall display by day not less than 15 feet above the deck, where they can best be seen from all directions, two balls not less than 2 feet in diameter, in a vertical line not less than 3 feet and not more than 6 feet apart, the upper ball to be painted in alternate black and white vertical

stripes 6 inches wide, and the lower ball to be painted a solid bright red. By night they shall display three red lights, carried in a vertical line not less than 3 feet nor more than 6 feet apart and not less than 15 feet above the deck, and in such position as may best be seen from all directions.

All the lights required by these special rules for dredges, wrecking boats, lighters, etc., shall be of such size and character as to be visible on a dark night with a clear atmosphere for a distance of at least 2 miles.

6. LIGHTS TO BE DISPLAYED ON PIPE LINES.

Pipe lines attached to dredges, and either floating or supported on trestles, shall display by night one row of white lights not less than 8 feet nor more than 12 feet above the water, about equally spaced and in such number as to mark distinctly the entire length and course of the line, the intervals between lights where the line crosses navigable channels to be not more than 30 feet. There shall also be displayed on the shore or discharge end of the line 2 red lights, 3 feet apart, in a vertical line with the lower light at least 8 feet above the water, and if the line is to be opened at night for the passage of vessels, a similar arrangement of lights shall be displayed on each side of the opening. The lights shall be of the same size and character as specified in rule 5 above.

7. PASSING SIGNALS.

Vessels intending to pass dredges or other types of floating plant working in navigable channels, when within a reasonable distance therefrom and not in any case over a mile, shall indicate such intention by blowing the passing signal prescribed in the local pilot rules for vessels under way, which shall be answered in the usual manner from said plant if the channel is clear, and the approaching vessel may pass on the course indicated; otherwise the floating plant shall sound the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant.

When the pipe line from a dredge crosses the channel in such a way that an approaching vessel, owing to excessive draft or for other reasons, can not pass around the pipe line or dredge, a signal shall be given from the vessel by sounding 4 blasts of the whistle, which shall be answered by a like signal from the dredge. The pipe line shall then be opened for the passage of the vessel as soon as practicable; when the line is open ready for passage, the dredge shall so indicate by sounding the usual passing signal, and the approaching vessel shall promptly pass the dredge.

8. SPEED OF VESSELS PASSING FLOATING PLANT WORKING IN CHANNELS.

Steamers, with or without tows, passing floating plant working in channels shall reduce their speed sufficiently to insure the safety of both the said plant and themselves, and when passing within 200

feet of the said plant their speed shall not exceed 5 miles per hour. While passing over lines of the said plant, propelling machinery shall be stopped.

9. LIGHT-DRAFT VESSELS PASSING FLOATING PLANT.

Vessels whose draft permits shall keep outside of the buoys marking the ends of mooring lines of floating plant working in channels.

10. PROTECTION OF MARKS PLACED FOR THE GUIDANCE OF FLOATING PLANT.

Breast, stern, and bow anchors of floating plant working in navigable channels shall be marked by suitable barrel buoys, and vessels shall not run over or destroy such buoys, or stakes, or other marks placed for the guidance of floating plant working in channels. By night, approaching vessels shall be shown the location of adjacent buoys by playing the searchlight from said plant on the buoys until the approaching vessel has passed.

11. OBSTRUCTION OF CHANNEL BY FLOATING PLANT.

Channels shall not be unnecessarily obstructed by any dredge or other floating plant. While vessels are passing such plant all lines running therefrom across the channel on the passing side which may interfere with or obstruct navigation shall be slacked to the bottom of the channel.

12. ANCHORAGE AND MOVEMENT OF VESSELS.

Vessels shall not anchor on the ranges of stakes or other marks placed for the guidance of floating plant working in channels, nor in such a manner as to obstruct the channels for other vessels. (Note: If it is necessary to prohibit or limit the anchorage or movement of vessels within certain areas in order to facilitate the work of improvement, application should be made through official channels for establishment by the Secretary of War of special or temporary regulations for this purpose.)

13. CLEARING OF CHANNELS.

When special or temporary regulations have not been prescribed and action under these rules and regulations will not afford clear passage, floating plant in narrow channels shall, upon notice, move out of the way of vessels a sufficient distance to allow them a clear passage. Vessels desiring passage shall, however, give the master of the floating plant ample notice in advance of the time they expect to pass.

14. REVOCATION OF CONFLICTING REGULATIONS.

All regulations or parts of regulations in conflict with these regulations are hereby revoked.

**WAR DEPARTMENT RULES AND REGULATIONS GOVERNING THE
OPENING OF DRAWBRIDGES OVER THE OHIO RIVER AND ITS
TRIBUTARIES.**

OHIO RIVER.

LOUISVILLE AND PORTLAND CANAL.

KENTUCKY AND INDIANA BRIDGE.

[Regulations prescribed Sept. 20, 1901 (Ed. 40555/5). The law—Sec. 5 of act of Congress approved Aug. 18, 1894.]

1. The draw span shall be kept ready for prompt opening at all stages of water in the Ohio River above 40 feet, lower gauge, locks of the Louisville & Portland Canal.

2. When a steamboat or other water craft desires to pass through the draw span the officer or person in charge thereof shall cause to be sounded, within signaling distance of the bridge, three short blasts of a steam whistle or of a horn.

3. Upon hearing or perceiving the signal prescribed the tenders or operators of the drawbridge shall at once and within a period not greater than five minutes from the time the signal is given, open the draw span of the bridge for the prompt passage of said steamboat or craft: *Provided*, That the bridge may not be opened when there is a train, wagon, or vehicle at the time passing over said draw span, or a train approaching so closely that it can not be safely stopped before reaching the bridge, but it shall be opened as soon as the draw span may be cleared.

4. Wagons, vehicles, and trains shall not be stopped on said drawbridge or on the draw span for the purpose of delaying the operations of the draw, nor shall water craft be so manipulated as to hinder or delay the operation of the draw, but all passage through, upon, or under said drawbridge shall be prompt to prevent delay to either land or water communication.

CUMBERLAND RIVER.

GENERAL BRIDGE REGULATIONS.

[Prescribed Mar. 6, 1908 (E. D. 66364/5). The law—Sec. 5 of act of Congress of Aug. 18, 1894.]

1. Whenever a steamboat approaches any drawbridge and desires to pass through the draw thereof, the officer or person in charge of said steamboat shall cause to be sounded, when said boat is within 20 minutes' run of the bridge, four distinct blasts of the steam whistle, and shall repeat the same at intervals of 5 minutes until it is seen from the boat that the signal is understood on the bridge and that the bridge is being opened.

2. Upon hearing the signal prescribed, the tenders or operators of the drawbridge shall at once open the draw spans of the bridge for the prompt passage of said steamboat: *Provided*, That the draw may not be opened when there is a train, wagon, or vehicle at the time passing over said draw span, or a train approaching so closely that it can not be safely stopped before reaching the bridge, but it shall be opened as soon as the draw span may be cleared: *Provided further*, That wagons, vehicles, and trains shall not be stopped on said drawbridge or on the draw span for the purpose of delaying the operation of the draw span, nor shall steamboats be so manipulated as to hinder or delay the operation of the draw span, but all passage upon, through, or under said drawbridge shall be prompt, to prevent delay to either land or water traffic.

3. In case it is impossible for any cause to open the drawbridge promptly when the signals are given, the fact shall be signaled from the bridge to the approaching boat in the following manner: By two long blasts from a steam whistle, if the bridge is equipped with one of sufficient size and power to be distinctly heard under all conditions of weather from a boat at least half a mile distant, or by two shots in quick succession, fired from a gun from some point near the center of the bridge where the smoke and flash can be distinctly seen from the boat, and this signal shall be made when the boat is at least half a mile away from the bridge. Upon hearing or seeing either of these signals, the boat must secure itself in some manner and wait until the bridge can be opened.

TENNESSEE RIVER.

GENERAL BRIDGE REGULATIONS.

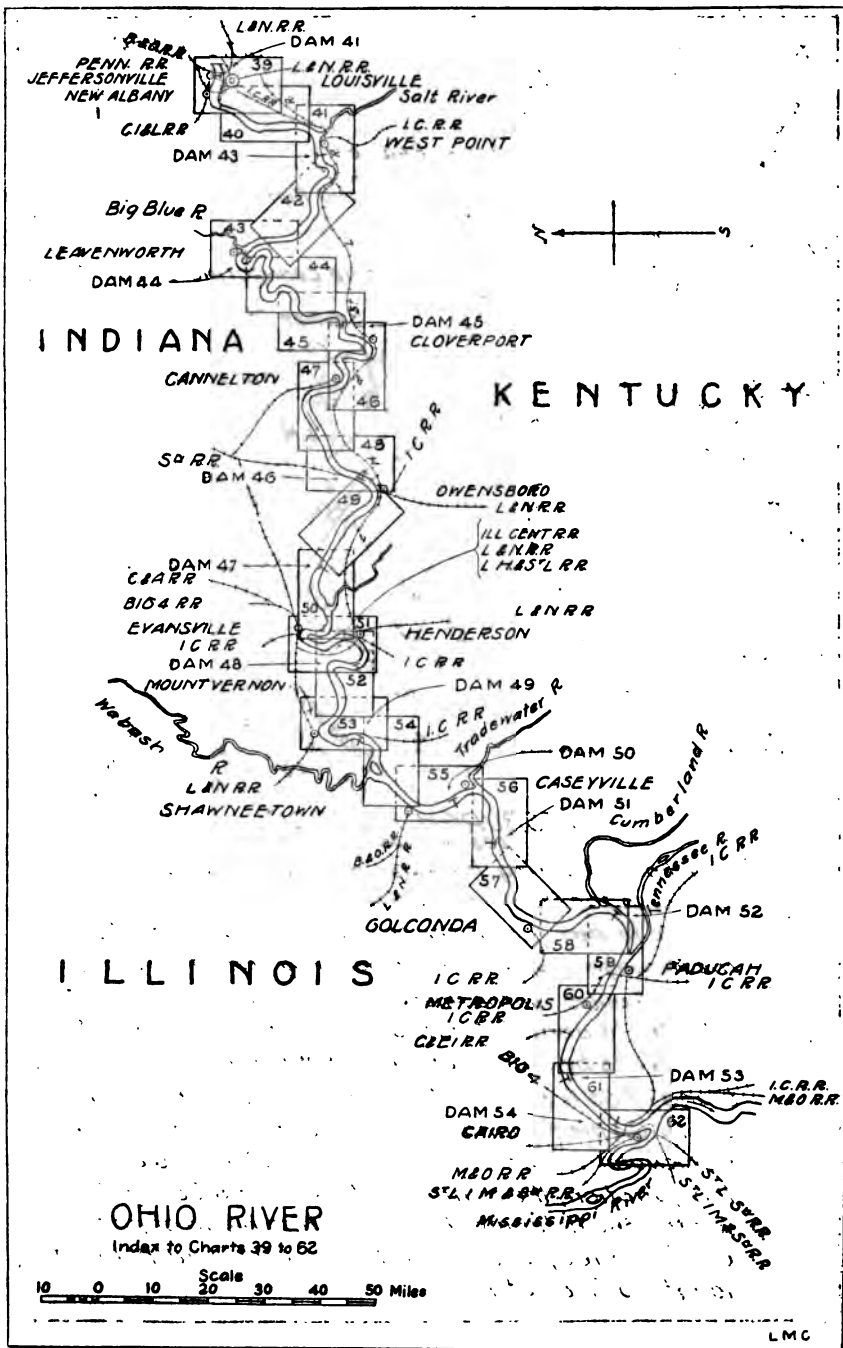
[Prescribed May 17, 1900 (E. D. 28897/7). The law—Sec. 5 of act of Congress of Aug. 18, 1894.]

1. Whenever a steamboat approaches any drawbridge and desires to pass through the draw thereof, the officer or person in charge of said steamboat shall cause to be sounded, when said boat is within 20 minutes' run of the bridge, four distinct blasts of the steam whistle, and shall repeat the same at intervals of 5 minutes until it is seen from the boat that the signal is understood on the bridge and that the bridge is being opened.

2. Upon hearing the signal prescribed, the tenders or operators of the drawbridge shall at once open the draw spans of the bridge for the prompt passage of said steamboat: *Provided*, That the draw may not be opened when there is a train, wagon, or vehicle at the time passing over said draw span, or a train approaching so closely that it can not be safely stopped before reaching the bridge, but it shall be opened as soon as the draw span may be cleared: *Provided further*, That wagons, vehicles, and trains shall not be stopped on said drawbridge or on the draw span for the purpose of delaying the operations of the draw span, nor shall steamboats be so manipulated as to hinder or delay the operation of the draw span, but all passage upon, through, or under said drawbridge shall be prompt, to prevent delay to either land or water traffic.

3. In case it is impossible for any cause to open the drawbridge promptly when the signals are given, the fact shall be signaled from the bridge to the approaching boat in the following manner: By two long blasts from a steam whistle, if the bridge is equipped with one of sufficient size and power to be distinctly heard under all conditions of weather from a boat at least half a mile distant, or by two shots in quick succession, fired from a gun from some point near the center of the bridge where the smoke and flash can be distinctly seen from the boat, and this signal shall be made when the boat is at least half a mile away from the bridge. Upon hearing or seeing either of these signals, the boat must secure itself in some manner and wait until the bridge can be opened.





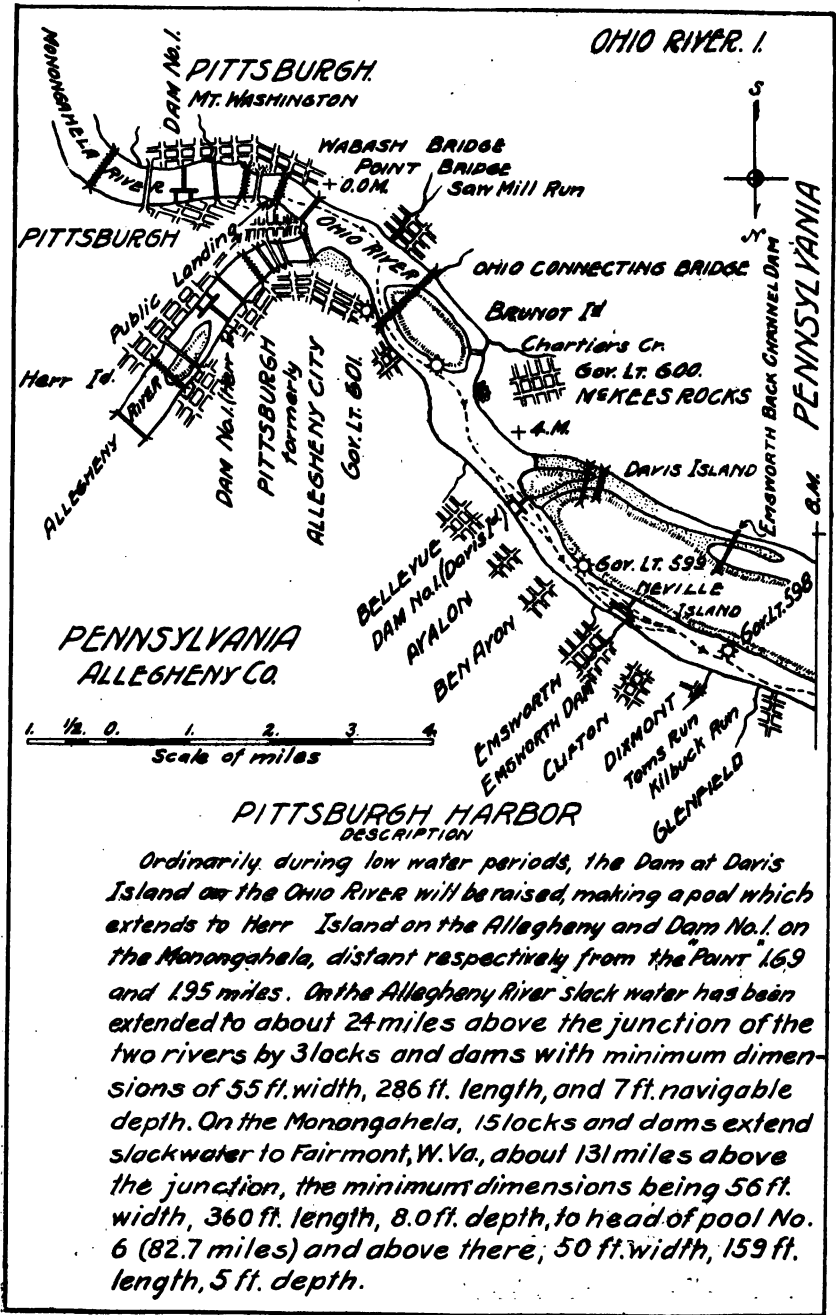


Chart No. 1.

Miles below
Pittsburgh.¹**PITTSBURGH**, County seat of Allegheny Co., Pa. (533,905).

The original settlement, made about 1760, closely adjoined Fort Pitt.

Pittsburgh controls extensive banking and general mercantile business; while including many other kinds of manufacture, such as glass in various forms, the principal industry is the manufacture of iron and steel.

Railroads: Pennsylvania R. R., including main line east, the B. & A. V. Div., and Western Penna. Div.; Penna. lines west of Pittsburgh, including P. C. C. & St. L. Div., P. Ft. W. & C. Div., C. & P. Div., P. Y. & A. Div., etc. Baltimore & Ohio R. R. eastern lines, including Ohio River Div., and western lines to the Great Lakes, etc., B. & O. S. W. R. R. to points southwest and west. N. Y. Central lines, P. & L. E. Div.; Bessemer & Lake Erie R. R.; Wabash; Pittsburgh Terminal Ry. Co.

The lower Monongahela River, etc. The public wharf in Pittsburgh lies along the Monongahela River below the Smithfield Street Bridge. Starting downstream from this point, two bridges must be passed before entering the Ohio.

WABASH R. R. BRIDGE: Channel span, 812 feet; height, 70 feet.

(For this and all subsequent bridges named herein the height stated is that above low water.)

POINT BRIDGE, crossing from Pittsburgh to South Side.-----

0.0

Channel span, 770 feet; height, 75.2 feet.

Ohio River: After passing the "Point" the navigator enters the Ohio River, formed by the junction of the Allegheny and Monongahela.

SAW MILL RUN-----

LEFT BANK

1.5

601. GLASS HOUSE LIGHT. Color Red.-----

RIGHT BANK

1.8

BRUNOT ISLAND, HEAD-----

1.8

At times of rather high water with open river, when the pool of Davis Island Dam is full, small boats may pass on either side of Brunot Island, but large boats must take the right-hand channel. During low-water periods, should Davis Island Dam be down, all boats must take the right-hand channel, which will then afford a navigable depth of barely 2 feet.

PENNA. RY., Ohio Connecting Bridge-----

2.0

Channel span, 508 feet; height, 82.0 feet.

CHARTIERS CREEK-----

LEFT BANK

2.7

600. BRUNOT ISLAND LIGHT. Color White.-----

LEFT BANK

2.8

McKEES ROCKS-----

LEFT BANK

3.2

RELLEVUE, PA. Allegheny Co. (6,323)-----

RIGHT BANK

4.6

DAVIS ISLAND, HEAD-----

LEFT BANK

4.6

OHIO RIVER DAM NO. 1, Davis Island Dam-----

4.7

First in operation in 1886. Lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 559 feet.

Note direction for passing this and other Ohio dams now completed, as follows:

1. If dam is up, signals must be given and the locks entered in accordance with regulations. (See p. 11.)

2. If dam is down, boats must go through the navigable pass at a distance of about 300 feet from river lock wall.

CAUTION: At high stages of the river care must be taken to avoid running on the lock walls, piers, etc., which may be submerged.**NEVILLE ISLAND, HEAD**-----

LEFT BANK

4.9

AVALON, Allegheny Co., Pa. (4,817)-----

RIGHT BANK

4.9

BEN AVON, Allegheny Co., Pa. (1,828)-----

RIGHT BANK

5.5

EMSWORTH, Allegheny Co., Pa. (1,510)-----

RIGHT BANK

5.9

EMSWORTH DAM (Under Construction, 1920)-----

RIGHT BANK

6.1

This will be a fixed dam having two locks with dimensions as follows:

Large lock: Length (clear for lockage), 600 feet; width, 110 feet.

Small lock: Length (clear for lockage), 360 feet; width, 56 feet.

The gates in both locks will be of the mitering type. This dam when completed will replace Ohio River Dams Nos. 1 and 2.

CAUTION: The Emsworth Dam being a fixed dam, it will be necessary for all boats, single or with tows, to use the locks.**CLIFTON**, Allegheny Co., Pa. (600)-----

RIGHT BANK

6.6

DIXMONT, Allegheny Co., Pa. (1,040)-----

RIGHT BANK

7.3

TOMS RUN-----

RIGHT BANK

7.4

599. BUFF BAR LIGHT. Color White.-----

LEFT BANK

7.8

KILBUCK RUN-----

RIGHT BANK

7.9

GLENFIELD, Allegheny Co., Pa. (984)-----

RIGHT BANK

7.9

NOTE.—On this and subsequent pages of the chart text the population of cities and towns (1910) is stated by numbers included in parentheses, thus:—(533,905), (6,323), etc.¹ Distances are measurements along the traverse line which was run on the left bank of the river in connection with the general survey and were obtained as follows:

(a) A line was drawn from the particular point to the traverse line and at right angles to the general course of the river at the locality.

(b) The distance from Pittsburgh to the intersection of those lines was determined and is the distance given in the table.

Chart No. 2.

Miles below
Pittsburgh.

OHIO RIVER DAM No. 2.		9.0
Lock on left bank. Length, 600 feet; width, 110 feet; width of navigable pass 700 feet. Note direction and caution as in case of Dam No. 1, p. 25.		
597. NEGRO RUN LIGHT. Color White.	RIGHT BANK	9.5
TIMBER CRIB DIKE. Left of channel on Neville Island.		9.6
598. WHITE RIPPLE LIGHT No. 4. Color White.	LEFT BANK	10.0
(NOTE.—Dike on left bank.)		
CORAOPOLIS, Allegheny Co., Pa. (5,252) (formerly Middletown).	LEFT BANK	10.1
Railroads: P. & L. E. (N. Y. Central Lines). Electric line to Pittsburgh via Neville Island, and to south end of Sewickley Bridge.		
HAYSVILLE, Allegheny Co., Pa. (166)	RIGHT BANK	10.1
599. WHITE RIPPLE LIGHT No. 2. Color Red.	LEFT BANK	10.2
(NOTE.—Dike on left bank, near foot Neville Island.)		
MITCHELL RUN	RIGHT BANK	10.3
OHIO RIVER DAM No. 3.		10.9
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass 700 feet. Note direction and caution as in case of Dam No. 1, p. 25.		
OSBORNE, Allegheny Co., Pa. (425)	RIGHT BANK	11.0
SEWICKLEY, Allegheny Co., Pa. (4,479)	RIGHT BANK	11.6
Railroads: Penna. lines west of Pittsburgh. Electric line south end of Ohio Bridge to Pittsburgh, via Neville Island.		
SEWICKLEY HIGHWAY BRIDGE		11.7
Channel span, 724 feet; height, 90 feet.		
STOOPS FERRY, Allegheny Co., Pa.	LEFT BANK	12.2
Railroads: P. & L. E. (N. Y. Central lines).		
NARROWS RUN	LEFT BANK	12.2
ANDERSONS RUN	RIGHT BANK	12.2
594. DEADMAN ISLAND LIGHT No. 3. Color red.	RIGHT BANK	13.0
(Keep right-hand channel.)		
DEADMAN ISLAND	LEFT BANK	13.2
LITTLE SEWICKLEY CREEK	RIGHT BANK	13.5
593. DEADMAN ISLAND LIGHT No. 1. Color White.	RIGHT BANK	13.3
FLAHERTYS RUN	LEFT BANK	14.0
LEETSDALE, Allegheny Co., Pa. (1,904)	RIGHT BANK	14.0
SHOUSETOWN, Allegheny Co., Pa. (830)	LEFT BANK	14.2
SEWICKLEY CREEK (County Line, Allegheny-Beaver, Pa.)	RIGHT BANK	15.0
592. SEWICKLEY ROCKS LIGHT. Color White.	LEFT BANK	16.0
SOUTH HEIGHTS, Beaver Co., Pa. (365)	LEFT BANK	16.0
AMBRIDGE, Beaver Co., Pa. (5,205)	RIGHT BANK	16.0
(American Bridge Co.'s shops.)		
ECONOMY, Beaver Co., Pa. (900)	RIGHT BANK	17.0
(German community settlement).		
591. LOGSTOWN BAR LIGHT. Color White.	RIGHT BANK	17.8
Avoid low (ordinarily submerged) stone dike, left bank.		
WOODLAWN, Beaver Co., Pa. (1,396)	LEFT BANK	18.5
OHIO RIVER DAM No. 4.		18.6
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass 100 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
LEGIONVILLE, Beaver Co., Pa. (25)	RIGHT BANK	18.6
McKEES RUN	LEFT BANK	19.6
BADEN, Beaver Co., Pa. (601)	RIGHT BANK	19.9
Railroads: Penna. lines.		
ALQUIPPA, Beaver Co., Pa. (1,743)	LEFT BANK	20.0
CROW and HOG ISLANDS, near left bank. Head.		20.0
Keep to main channel, which is shoal at lower end with Dam No. 5 down.		
590. KNOX BAR LIGHT. Color White above Red.	RIGHT BANK	20.5
TEVABBAU RUN	RIGHT BANK	21.1
589. WALLORY BAR LIGHT No. 1. Color White above Red.	RIGHT BANK	21.8
CROWS RUN	RIGHT BANK	22.2
588. WALLORY BAR LIGHT No. 2. Color White.	LEFT BANK	22.3
ELKHORN RUN	LEFT BANK	22.7
DUTCHMANS RUN	RIGHT BANK	22.8
FREEDOM, Beaver Co., Pa. (3,060)	RIGHT BANK	22.5
Suburbs of Rochester, Pa.. (Vicary, St. Clair, Freedom, right bank.)		
OHIO RIVER DAM No. 5.		23.9
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		

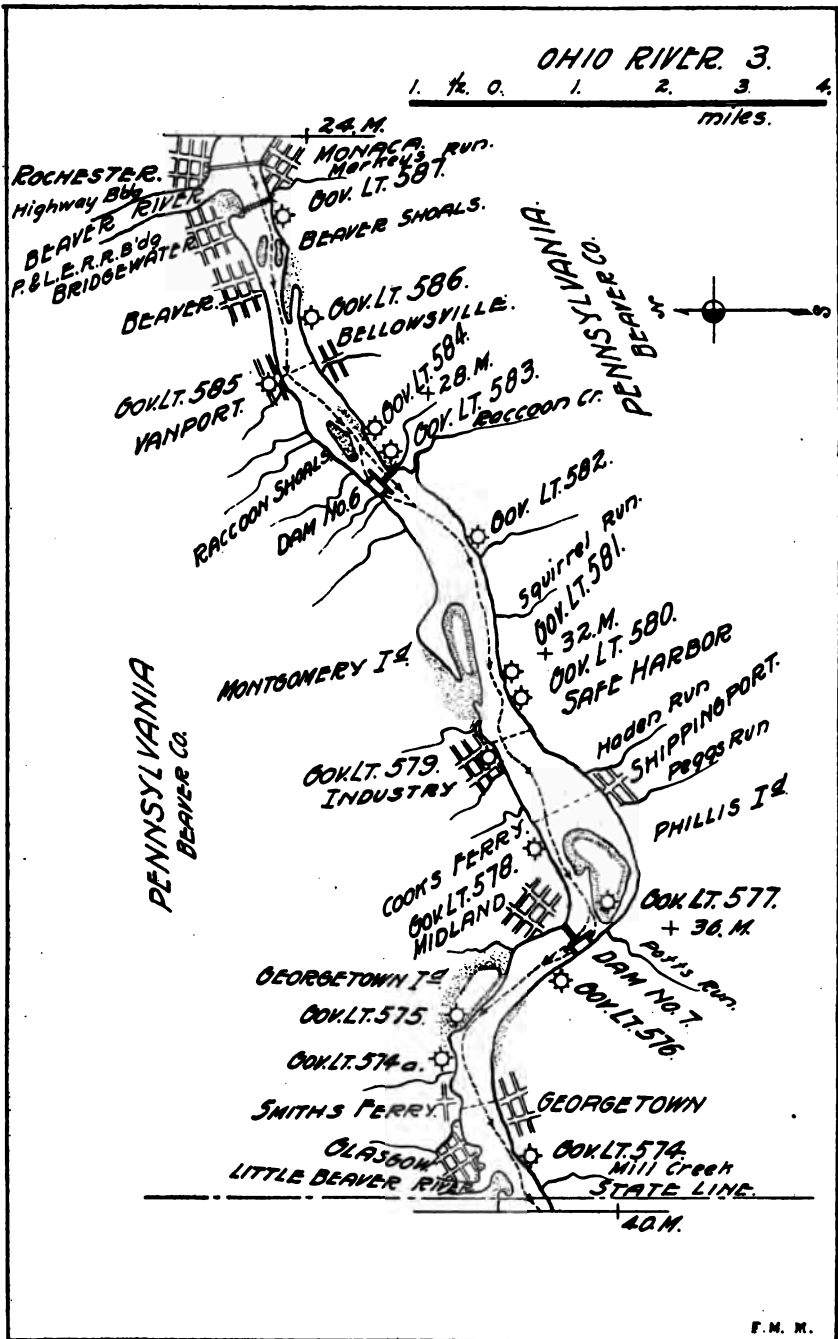


Chart No. 3.

Miles below
Pittsburgh.

MONACA, Beaver Co., Pa. (3,376)-----	LEFT BANK	24.5
Railroads: P. & L. E. R. R. (N. Y. Central lines).		
ROCHESTER BRIDGE (highway)-----		24.7
Channel span, 782 feet; height, 90 feet.		
ROCHESTER, Beaver Co., Pa. (5,903)-----	RIGHT BANK	24.8
Railroads: Penna. lines west of Pittsburgh.		
BEAVER RIVER-----	RIGHT BANK	25.0
Slackwater once extended to the Forks (see Tributary streams).		
BRIDGEWATER, Beaver Co., Pa. (1,562)-----	RIGHT BANK	25.2
Railroads: Penna. lines west of Pittsburgh; P. & L. E. R. R. (N. Y. Central lines).		
MARKEYS RUN-----	LEFT BANK	25.3
PITTSBURGH & LAKE ERIE R. R. BRIDGE (guiding dike above bridge)-----		25.3
Channel span, 734 feet; height, 90 feet.		
587. BEAVER SHOALS LIGHT No. 6. Color White-----	LEFT BANK	25.6
(Beaver Shoals lie to right of channel.)		
BEAVER SHOALS, Head-----	RIGHT BANK	25.7
BEAVER, county seat Beaver Co., Pa. (3,456)-----	RIGHT BANK	26.0
Railroads: C. & P. Div. (Penna. lines) and P. & L. E. R. R. (N. Y. Central lines). Electric lines to Vanport and Pittsburgh.		
588-a. BEAVER SHOALS FLOAT LIGHT No. 4. Color Red-----	LEFT BANK	26.0
586. BEAVER SHOALS LIGHT No. 2. Color White-----	LEFT BANK	26.6
VANPORT, Beaver Co., Pa. (600)-----	RIGHT BANK	27.5
Railroads: C. & P. Div. (Penna. lines). Electric line to Pittsburgh. Ferry to left bank.		
588. VANPORT LIGHT. Color White-----	RIGHT BANK	27.5
BELLOWSVILLE, Beaver Co., Pa.-----	LEFT BANK	27.6
584. RACCOON BAR LIGHT No. 4. Color White-----	LEFT BANK	28.3
583. RACCOON BAR DAYMARK No. 2. Color White-----	LEFT BANK	28.6
DAM No. 6, OHIO RIVER-----		28.8
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
BEAVER COUNTY POOR FARM-----	LEFT BANK	28.8
RACCOON CREEK-----	LEFT BANK	29.1
582. MONTGOMERY ISLAND LIGHT No. 6. Color White-----	LEFT BANK	30.3
MONTGOMERY ISLAND, Head-----		31.4
SQUIRREL RUN-----	LEFT BANK	31.4
581. MONTGOMERY ISLAND LIGHT No. 4. Color White-----	LEFT BANK	32.0
580. MONTGOMERY ISLAND DAYMARK No. 2. Color White-----	LEFT BANK	32.5
INDUSTRY, Beaver Co., Pa.-----	RIGHT BANK	33.0
Railroads: Penna. lines (C. & P. Div.). Ferry to Safe Harbor on left bank.		
579. INDUSTRY LIGHT. Color White-----	RIGHT BANK	33.0
HADEN RUN-----	LEFT BANK	33.6
SHIPPINGPORT-----	LEFT BANK	33.6
COOKS FERRY, Beaver Co., Pa.-----	RIGHT BANK	33.9
Railroads: Penna. lines (C. & P. Div.). Ferry to Shippingport, Pa., on left bank.		
PEGGS RUN-----	LEFT BANK	34.2
578. PHILLIS ISLAND LIGHT No. 1. Color White-----	RIGHT BANK	34.5
PHILLIS ISLAND, Head-----		34.6
577. PHILLIS ISLAND LIGHT No. 2. Color White-----	LEFT BANK	35.5
POTTS RUN-----	LEFT BANK	36.0
OHIO RIVER DAM No. 7-----		36.9
Lock on left bank; length, 600 feet; width, 110 feet; width navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
MIDLAND, Beaver Co., Pa. (1,344)-----	RIGHT BANK	36.9
576. GEORGETOWN ISLAND LIGHT No. 2. Color White-----	LEFT BANK	37.0
GEORGETOWN ISLAND, Head-----		37.3
575. GEORGETOWN ISLAND LIGHT No. 1. Color White-----	RIGHT BANK	37.5
574-a. INDIAN ROCKS LIGHT. Color White-----	RIGHT BANK	38.2
GEORGETOWN, Beaver Co., Pa. (269)-----	LEFT BANK	38.6
Ferry to right bank.		
SMITHS FERRY, Beaver Co., Pa. (580)-----	RIGHT BANK	38.7
Railroads: Penna. lines (C. & P. Div.). Ferry to left bank.		
GLASGOW, Beaver Co., Pa. (203)-----	RIGHT BANK	39.0
Railroad: Penna. lines (C. & P. Div.).		
LITTLE BEAVER RIVER-----	RIGHT BANK	39.2
This stream once outlet for slackwater system extending to interior of eastern Ohio. Works now in ruins.		
574. GEORGETOWN LIGHT. Color White-----	LEFT BANK	39.3
STATE LINE-----		39.8
Pennsylvania and West Virginia on left bank and Pennsylvania and Ohio on right bank here crosses the river near the mouth of "Line Mill Creek," left bank.		
MILL CREEK-----	LEFT BANK	39.9

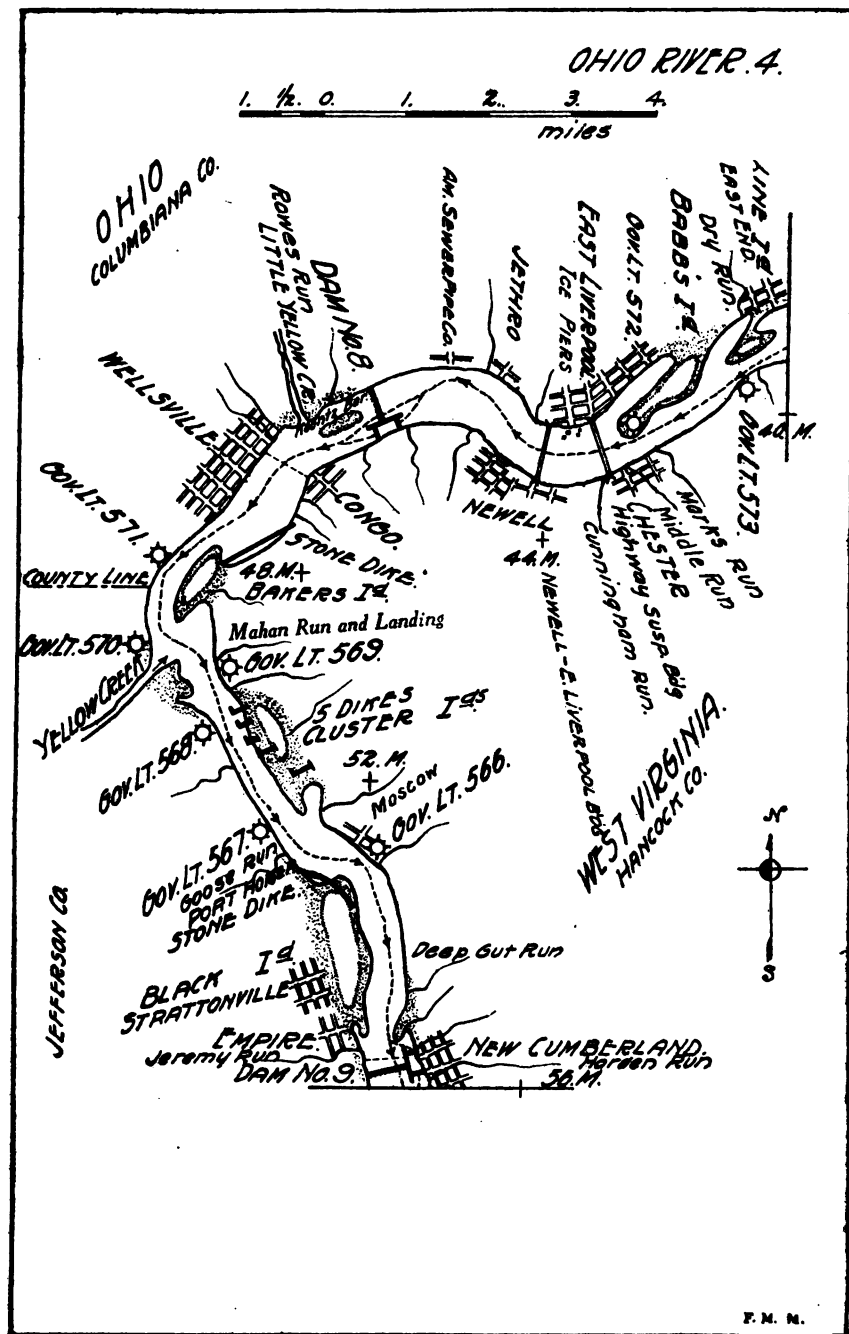


Chart No. 4.

Miles below
Pittsburgh.

EAST END, Columbiana Co., Ohio.....	RIGHT BANK	40.0
578. LINE ISLAND LIGHT. Color White.....	LEFT BANK	40.5
Line Island, so-called from its nearness to the Pa.-W. Va.-Ohio boundary line.		
DICKEYS RUN.....	LEFT BANK	40.7
DRY RUN.....	RIGHT BANK	40.7
BABBS ISLAND.....	RIGHT BANK	41.5
MARKS RUN.....	LEFT BANK	42.3
572. BABBS ISLAND LIGHT, on island, right side of channel. Color White.....		42.3
MIDDLE RUN.....	LEFT BANK	42.7
CHESTER, Hancock Co., W. Va. (Third Street) (\$,184).....	LEFT BANK	42.8
Industries: Pottery and tin plate. Railroads: P. C. C. & St. L. (Penna. lines). Electric line to East Liverpool.		
EAST LIVERPOOL BRIDGE (highway suspension).....		43.1
Channel span, 692 feet; height, 90 feet.		
CUNNINGHAM RUN.....	LEFT BANK	43.2
EAST LIVERPOOL ICE PIERS (upper).....	RIGHT BANK	43.4
EAST LIVERPOOL, Columbiana Co., Ohio (20,887).....	RIGHT BANK	43.7
Principal industry: Pottery (very extensive). Railroads: C. & P. Div. (Penna. lines). Electric lines to Pittsburgh, Pa., Chester, W. Va., Newell and Wheeling, W. Va., Steubenville and Youngstown, Ohio.		
EAST LIVERPOOL-NEWELL BRIDGE (highway).....		44.3
Channel span, 725 feet; height, 94.3 feet.		
NEWELL, Hancock Co., W. Va. (275).....	LEFT BANK	44.6
Principal industries: Pottery and tile. Railroads: P. C. C. & St. L. (Penna. lines). Electric lines to East Liverpool.		
JETHRO RUN.....	RIGHT BANK	44.6
JETHRO, Columbiana Co., Ohio.....	RIGHT BANK	44.7
AMERICAN SEWER PIPE CO.....	RIGHT BANK	45.9
OHIO RIVER DAM No. 8.....		46.1
Lock on left bank. Length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
KOONTZ BAR.....	RIGHT BANK	46.3
HOWES RUN.....	RIGHT BANK	46.4
LITTLE YELLOW CREEK.....	RIGHT BANK	46.8
CONGO, Hancock Co., W. Va. (150).....	LEFT BANK	46.9
Railroads: P. C. C. & St. L. (Penna. lines). Steam ferry to Wellsville.		
WELLSVILLE, Columbiana Co., Ohio (7,769).....	RIGHT BANK	47.5
Principal industries: C. & P. repair shops. Railroads, C. & P. Div. (Penna. lines). Electric line, Pittsburgh-Wheeling and intermediate points.		
STONE DIKE (keep to right).....	LEFT BANK	48.6
Connects shore with bar at head of Baker Island.		
571. BAKER ISLAND LIGHT No. 3. Color White with Red Front.....	RIGHT BANK	48.9
570. BAKER ISLAND LIGHT No. 1. Color White.....	RIGHT BANK	49.6
YELLOW CREEK and YELLOW CREEK BAR.....	RIGHT BANK	49.9
MAHAN RUN and LANDING.....	LEFT BANK	50.3
569. MAHAN LIGHT. Color White.....	LEFT BANK	50.5
N. B.—Cluster Islands, with 4 dikes and 1 dam connecting with W. Va. shore just below. Keep to right.		
568. CLUSTERS DAYMARK No. 3. Color White.....	RIGHT BANK	51.0
567. CLUSTERS LIGHT No. 1. Color White.....	RIGHT BANK	51.9
GOOSE RUN.....	RIGHT BANK	52.4
MOSCOW, Hancock Co., W. Va. (85).....	LEFT BANK	52.6
Principal industries: Firebrick and tile. Railroads: P. C. C. & St. L. (Penna. lines).		
FORT HOMER, Jefferson Co., Ohio (150).....	RIGHT BANK	52.9
DIKE, head of Black Island (keep to left).....		53.0
566. BLACK ISLAND LIGHT. Color White.....	LEFT BANK	53.3
STRATTONVILLE, Jefferson Co., Ohio.....	RIGHT BANK	54.5
DEEP GUT RUN.....	LEFT BANK	55.0
EMPIRE, Jefferson Co., Ohio (509).....	RIGHT BANK	55.2
Railroads: C. & P. Div. (Penna. lines). Ferry to New Cumberland.		
JEREMY RUN.....	RIGHT BANK	55.3
OHIO RIVER DAM No. 9.....		55.6
Lock on left bank. Length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
HARDEN RUN.....	LEFT BANK	55.8
NEW CUMBERLAND, County seat Hancock Co., W. Va. (1,867).....	LEFT BANK	56.0
Principal industries: Fire brick and tile. Railroads: P. C. C. & St. L. (Penna. lines). Ferry to Empire, Ohio.		

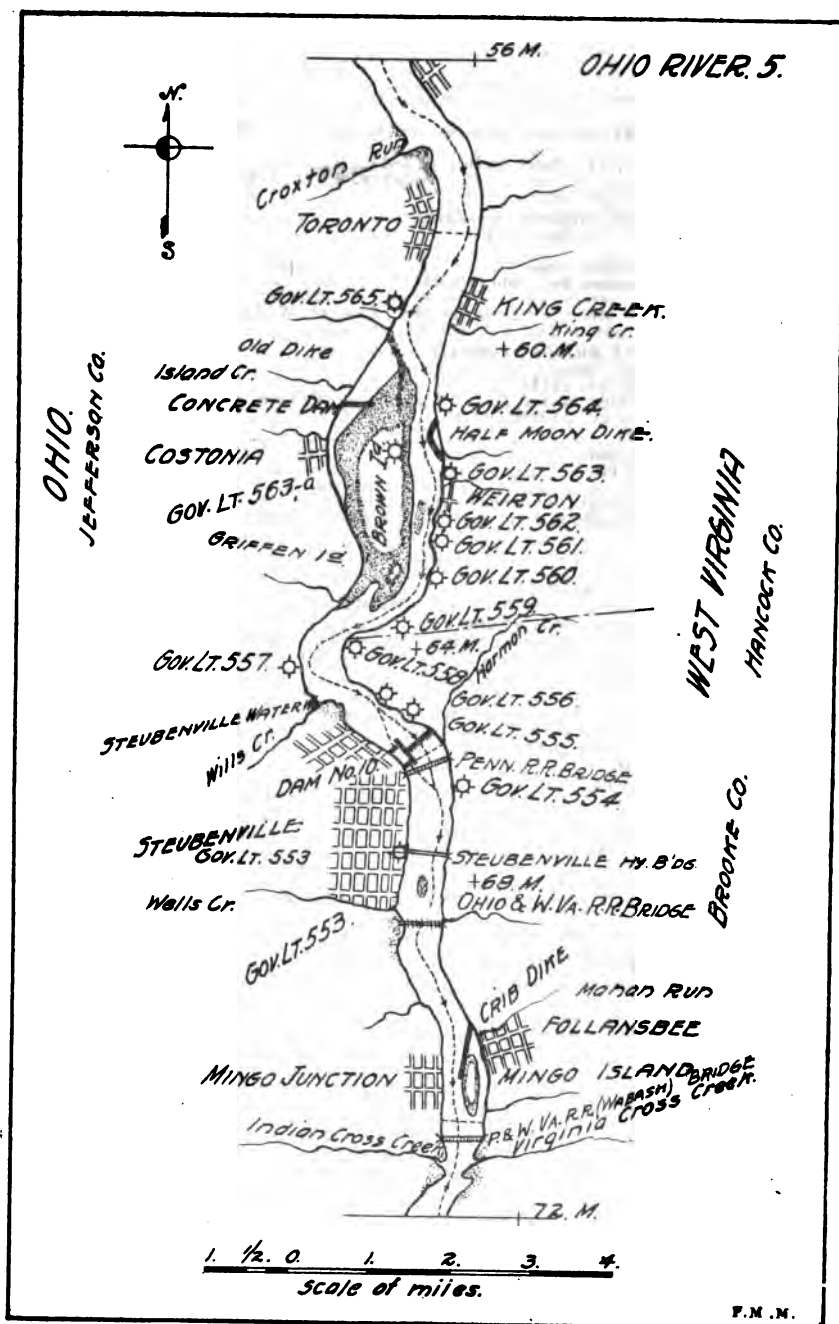


Chart No. 5.

Miles below
Pittsburgh.

CROXTON RUN AND BAR	RIGHT BANK	57.8
TORONTO, Jefferson Co., Ohio (4,271)	RIGHT BANK	58.6
Principal industries: Tile, etc. Railroads: C. & P. Div. (Penna. lines). Electric lines to Wheeling, Pittsburgh, and intermediate points. Ferry to West Virginia.		
KING CREEK, Hancock Co., W. Va.	LEFT BANK	59.8
Railroads: P. C. C. & St. L. (Penna. lines).		
565. JEDDO LIGHT (above Browns Island). Color White	RIGHT BANK	59.9
BROWN ISLAND, Head	RIGHT OF CHANNEL	60.5
(Keep to left of island to avoid back channel dam.)		
564. BROWN ISLAND LIGHT No. 14. Color White	LEFT BANK	60.9
HALF MOON DIKE (Stone)	LEFT BANK	61.0
(Keep on island side of channel until dike is passed.)		
563-a. BROWN ISLAND LIGHT No. 1. Color White	RIGHT BANK	61.2
ISLAND CREEK	RIGHT BANK	61.3
563. BROWN ISLAND LIGHT No. 12. Color White	LEFT BANK	61.4
WEIRTON, Hancock Co., W. Va. (2,500)	LEFT BANK	61.9
562. BROWN ISLAND DAYMARK No. 10. Color White	LEFT BANK	62.0
COSTONIA, Jefferson Co., Ohio	RIGHT BANK	62.0
561. BROWN ISLAND DAYMARK No. 8. Color White	LEFT BANK	62.3
560. BROWN ISLAND LIGHT No. 6. Color White	LEFT BANK	62.9
GRIFFEN ISLAND, Head	RIGHT OF CHANNEL	63.1
559. BROWN ISLAND LIGHT No. 4. Color White	LEFT BANK	63.6
558. BROWN ISLAND DAYMARK No. 2. Color White	LEFT BANK	64.2
557. CABLES EDDY LIGHT. Color White	RIGHT BANK	64.6
(Dangerous rocks on left bank.)		
ALIKANNA, OHIO, AND STEUBENVILLE WATERWORKS	RIGHT BANK	64.8
WILLS CREEK AND BAR	RIGHT BANK	64.8
556. WILLS CREEK DAYMARK No. 4. Color White	LEFT BANK	65.1
555. WILLS CREEK LIGHT No. 2. Color White	LEFT BANK	65.4
OHIO RIVER DAM No. 10		65.7
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
PENNSYLVANIA RAILROAD BRIDGE		66.2
Channel span, 303 feet; height, 89.6 feet.		
HARMON CREEK	LEFT BANK	66.2
554. BRIDGE RANGE LIGHT. Color White	LEFT BANK	67.0
STEUBENVILLE, County seat Jefferson Co., Ohio (22,391)	RIGHT BANK	67.6
Principal industries: Manufacture paper, iron, steel and clay products; banking and general merchandising. Railroads: P. C. C. & St. L. and C. & P. Div. (Penna. lines); also W. & L. E. Div. (Wabash). Electric lines to Pittsburgh and Wheeling.		
553. STEUBENVILLE LIGHT. Color White with Red Front	RIGHT BANK	67.6
STEUBENVILLE BRIDGE (highway)		67.6
Channel span, 875 feet; height, 94.1 feet.		
WELLS BAR	RIGHT BANK	68.1
WELLS CREEK	RIGHT BANK	68.3
LA BELLE BRIDGE (Ohio & W. Va. Bridge Co.) Steubenville, Ohio (railroad)		68.3
Channel span, 645 feet; height, 90 feet.		
MAHAN RUN	LEFT BANK	68.8
STONE DIKE, head of Mingo Island	LEFT BANK	69.5
(Keep to right-hand channel.)		
FOLLANSBEE, Brooke Co., W. Va. (2,081)	LEFT BANK	70.0
Industries: Tin plate and glass. Railroads: P. C. C. & St. L. (Penna. lines). Electric lines, Steubenville-Wheeling.		
MINGO JUNCTION, Jefferson Co., Ohio (4,019)	RIGHT BANK	70.5
Principal industries: Paper manufacturing. Railroads: P. C. C. & St. L. and C. & P. Div. (Penna. lines); W. & L. E. Div. (Wabash). Electric line to Steubenville and Pittsburgh.		
WHEELING & LAKE ERIE (WABASH) BRIDGE		71.1
Channel span, 675 feet; height, 90.5 feet.		
INDIAN CROSS CREEK	RIGHT BANK	71.2
VIRGINIA CROSS CREEK	LEFT BANK	71.3

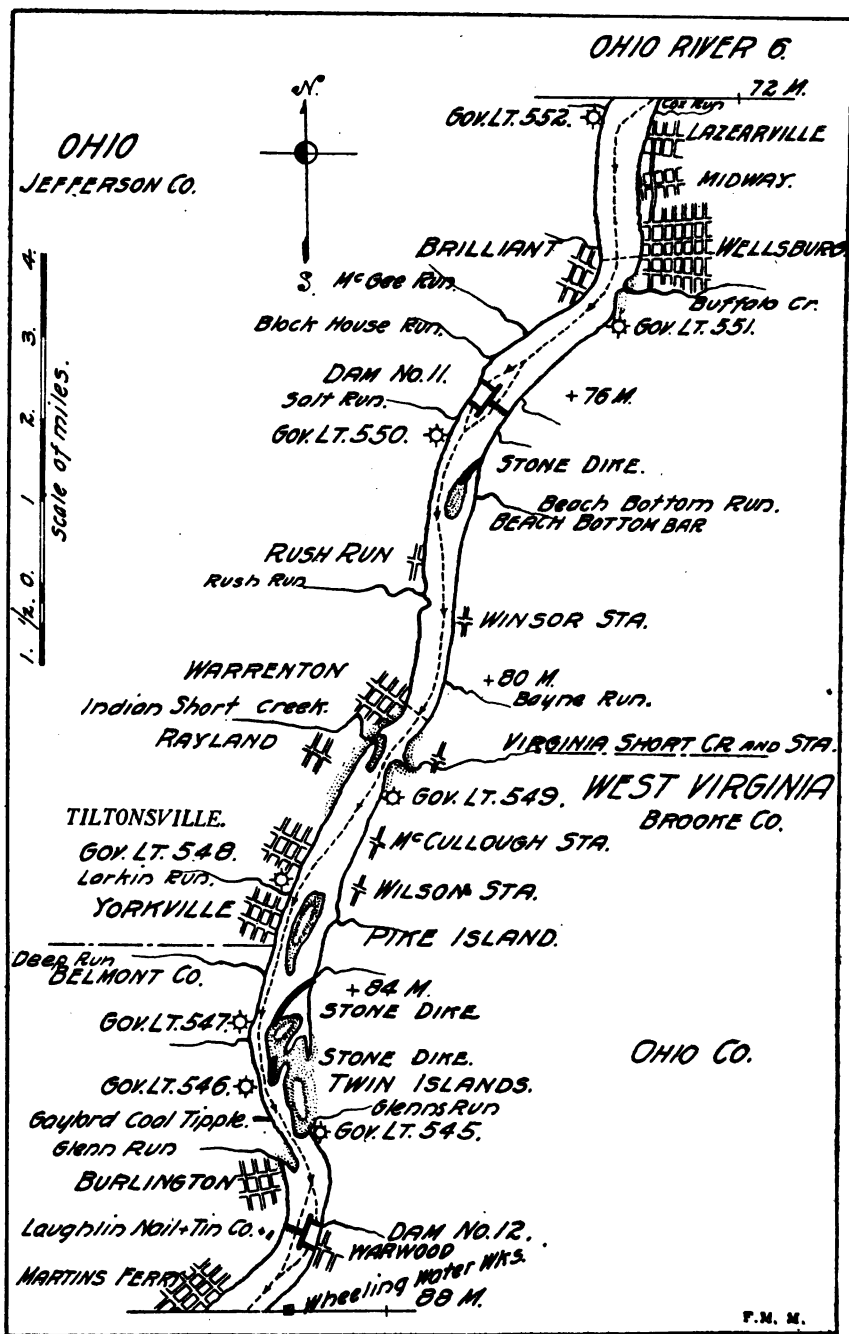


Chart No. 6.

Miles below
Pittsburgh.

COX RUN and COX BAR	LEFT BANK	72.4
552. COX RIFPLE LIGHT. Color White	RIGHT BANK	72.5
LAZEAUVILLE, Brooke Co., W. Va. (510)	LEFT BANK	72.8
Railroads: P. C. C. & St. L. (Penna. lines). Electric lines, Steubenville and Wheeling.		
MIDWAY, Putnam Co., W. Va. (47)	LEFT BANK	73.1
WELLSBURG, Brooke Co., W. Va. (4,189)	LEFT BANK	74.0
Railroads: P. C. C. & St. L. (Penna. lines). Electric lines to Steubenville and Wheeling, also to Bethany, W. Va. Ferry to Brilliant, Ohio. Buffalo Creek lower end of town.		
BRELLIANT, Jefferson Co., Ohio (742)	RIGHT BANK	74.1
Railroads: C. & P. Div. (Penna. lines) and W. & L. E. (Wabash). Electric lines Steubenville-Wheeling, etc. Ferry to Wellsburg, W. Va.		
551. BUFFALO CREEK DAYMARK. Color White	LEFT BANK	74.5
McGEE RUN	RIGHT BANK	75.0
BLOCKHOUSE RUN	RIGHT BANK	75.3
RIVER DAM No. 11		
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
SALT RUN	RIGHT BANK	76.6
550. BEACH BOTTOM LIGHT. Color White	RIGHT BANK	77.3
STONE DIKE. Head of Beach Bottom Bar	LEFT BANK	77.5
Take channel to right of bar. Beach Bottom Station P. C. C. & St. L. R. R. (Penna. lines). Channel depth (Dam No. 11 down) 1.8 feet.		
RUSH RUN, Jefferson Co., Ohio (160)	RIGHT BANK	78.6
Railroads: C. & P. Div. (Penna. lines) and W. & L. E. (Wabash). Electric lines, Steubenville-Wheeling, etc.		
RUSH RUN	RIGHT BANK	78.6
WINSOB STATION, Brooke Co., W. Va.	LEFT BANK	79.3
Railroads: P. C. C. & St. L. (Penna. lines). Electric line, Steubenville-Wheeling, etc.		
BAYNE RUN, Brooke Co., W. Va.	LEFT BANK	80.1
Railroads: P. C. C. & St. L. (Penna. lines). Electric line, Steubenville-Wheeling.		
WARRENTON, Jefferson Co., Ohio (307)	RIGHT BANK	80.9
Railroads: C. & P. Div. (Penna. lines) and W. & L. E. (Wabash); a junction point for the latter. Electric line to Bridgeport, Ohio (opposite Wheeling). Ferry to Short Creek Station, W. Va.		
SHORT CREEK STATION, Brooke Co., W. Va.	LEFT BANK	81.0
Railroads: P. C. C. & St. L. (Penna. lines). Electric lines to Steubenville-Wheeling. Ferry to Warrenton, Ohio.		
INDIAN SHORT CREEK	RIGHT BANK	81.2
VIRGINIA SHORT CREEK	LEFT BANK	81.2
Bars on both shores. Channel near middle of river. Channel depth at low water (open river) 2.4 feet.		
RAYLAND, Jefferson Co., Ohio (330)	RIGHT BANK	81.3
549. SHORT CREEK LIGHT. Color White	LEFT BANK	81.8
McCULLOUGH STATION, Ohio Co., W. Va.	LEFT BANK	81.8
Railroads: P. C. C. & St. L. (Penna. lines). Electric line, Steubenville-Wheeling.		
WILSON STATION, Ohio Co., W. Va.	LEFT BANK	82.5
Railroads: P. C. C. & St. L. (Penna. lines). Electric line, Steubenville-Wheeling.		
TILTONVILLE, Jefferson Co., Ohio (200)	RIGHT BANK	82.6
Coal mines back of town. Railroads: C. & P. Div. (Penna. lines); W. & L. E. (Wabash). Electric line to Bridgeport, Ohio.		
548. PIKE ISLAND LIGHT. Color White	RIGHT BANK	83.0
Take channel right of island.		
LARKIN RUN	LEFT BANK	83.3
YORKVILLE, Jefferson Co., Ohio (150)	RIGHT BANK	83.4
Coal mines back of town. Railroads: C. & P. Div. (Penna. lines); W. & L. E. R. R. (Wabash). Electric line to Bridgeport, Ohio.		
WILLOW STATION, Ohio Co., W. Va.	LEFT BANK	83.9
DEEP RUN	RIGHT BANK	83.9
STONE DIKE, head of SISTERS or TWIN ISLANDS	LEFT BANK	84.2
Take channel to right of islands. Least channel depth, open river, 1.7 feet.		
547. SISTERS LIGHT No. 3. Color White	RIGHT BANK	84.6
546. SISTERS LIGHT No. 1. Color White	RIGHT BANK	85.2
GAYLORD COAL TITTLE	RIGHT BANK	85.3
GUENNS RUN	LEFT BANK	85.7
545. SISTERS LIGHT No. 2. Color White	LEFT BANK	85.9
GLENN RUN	RIGHT BANK	86.1
BURLINGTON, Belmont Co., Ohio	RIGHT BANK	86.5
Railroads: C. & P. Div. (Penna. lines); W. & L. E. (Wabash). Electric lines to Bridgeport, Ohio.		
OHIO RIVER DAM No. 12		87.0
Lock on left bank: length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
WARWOOD, Ohio Co., W. Va. (415)	LEFT BANK	87.0
Railroads: P. C. C. & St. L. (Penna. lines). Electric line, Steubenville-Wheeling.		
ANDER. SHEET & TIN PLATE CO.	RIGHT BANK	87.4
MARTINS FERRY, Belmont Co., Ohio (9,133)	RIGHT BANK	88.0
Railroads: C. & P. Div. (Penna. lines) and W. & L. E. (Wabash). Electric lines to Bridgeport and Wheeling, W. Va.		
WHEELING WATERWORKS	LEFT BANK	88.0

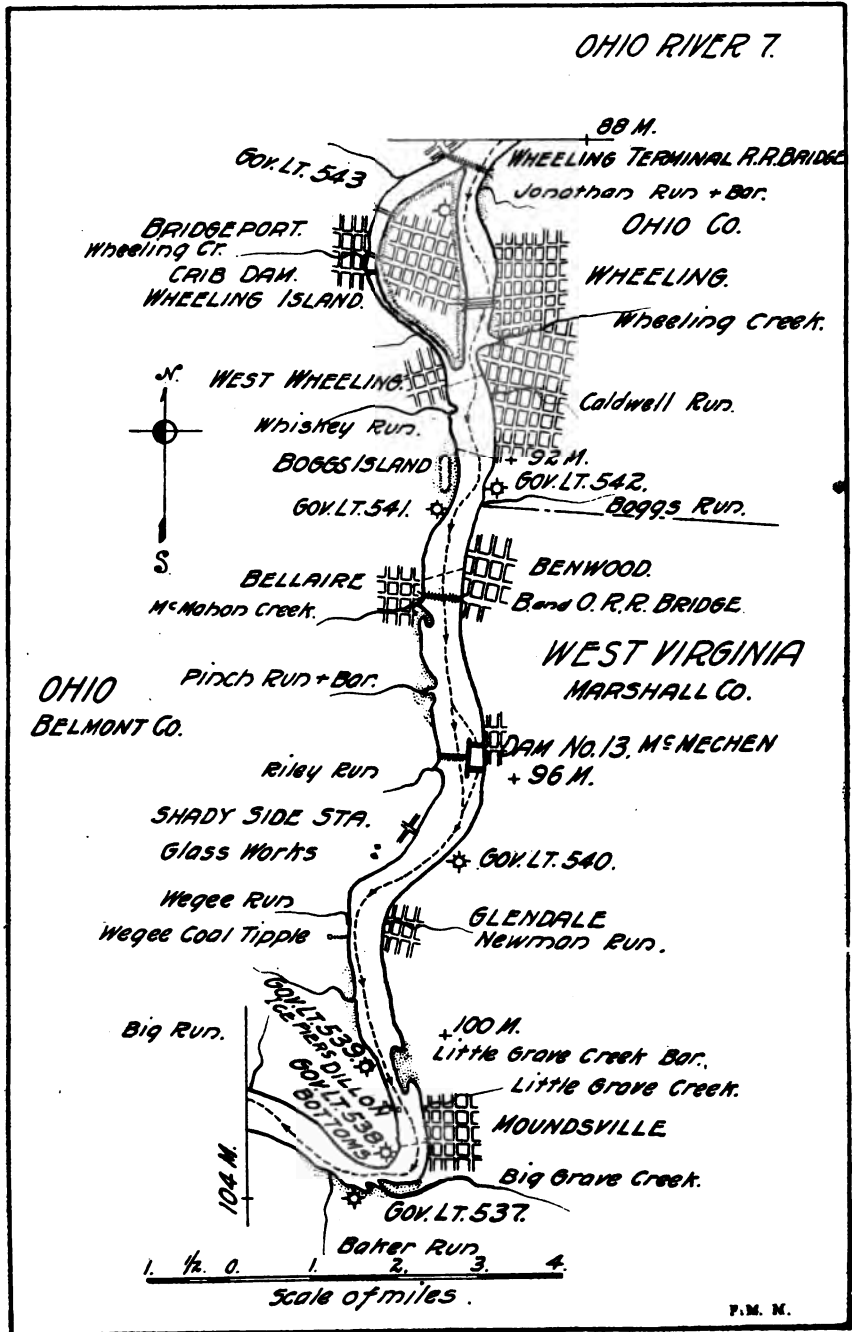


Chart No. 7.

Miles below
Pittsburgh.

WHEELING TERMINAL RY. BRIDGE -----		88.7
Channel span, 500 feet; height, 90 feet. Connects Ohio and West Virginia.		
JONATHAN RUN and BAR -----	LEFT BANK	88.9
543. WHEELING ISLAND LIGHT , on island. Color White-----	RIGHT OF CHANNEL	89.2
Wheeling Island extends about 2 miles. Dam across back channel. Take left-hand channel between island and West Virginia shore.		
WHEELING CREEK -----	RIGHT BANK	89.8
BRIDGEPORT , Belmont Co., Ohio (8,974)-----	RIGHT BANK	89.8
Railroads: C. & P. Div. (Penna. lines). Electric lines to Wheeling, W. Va., and Bellaire, Ohio.		
WHEELING SUSPENSION BRIDGE -----		89.9
Channel span, 980 feet; height, 91.5 feet. Connects city of Wheeling and Wheeling Island.		
WHEELING BRIDGE -----		90.0
Channel span, 507 feet; height, 90.7 feet.		
WHEELING , County seat Ohio Co., W. Va. (41,641)-----	LEFT BANK	90.1
Principal industries: Iron and steel glass, potteries, tobacco, etc. Railroads: P. C. C. & St. L. (Penna. lines); B. & O. R. R., east and west, also Ohio River Div. to Kenova, W. Va.; W. & L. E. (Wabash). Electric lines: Steubenville via Wellsburg; Short Creek, Bridgeport, Bellaire, etc., on Ohio shore; Benwood, Moundsville, etc., W. Va. The "National Road" crosses the Ohio at Wheeling.		
WHEELING CREEK -----	LEFT BANK	90.4
WEST WHEELING , Belmont Co., Ohio (250)-----	RIGHT BANK	91.0
Railroads: C. & P. Div. (Penna. lines). Electric lines: Wheeling-Bellaire.		
CALDWELL RUN -----	LEFT BANK	91.2
WHISKEY RUN -----	RIGHT BANK	91.8
542. BOGGS ISLAND DAYMARK No. 2 . Color White-----	LEFT BANK	92.7
Keep left-hand channel next West Virginia shore.		
BOGGS RUN -----	LEFT BANK	92.8
541. BOGGS ISLAND DAYMARK No. 1 , on island. Color White.		
	RIGHT OF CHANNEL	93.0
BENWOOD , Marshall Co., W. Va. (4,976)-----	LEFT BANK	93.8
Principal industries: Iron and steel and glass. Railroads: B. & O. R. R. east and west, also Ohio River Div. to Kenova, W. Va.		
BALTIMORE & OHIO RY. BRIDGE -----		94.1
Channel span, 322 feet; height, 90 feet.		
BELLAIRE , Belmont Co., Ohio (12,947)-----	RIGHT BANK	94.2
Principal industries: Iron, steel, and glass. Railroads: C. & P. Div. (Penna. lines); B. & O. R. R. east and west; Bellaire & St. Clairsville Div. (B. & O. R. R.).		
McMAHON CREEK and BAR -----	RIGHT BANK	94.3
PINCH RUN and BAR -----	RIGHT BANK	95.8
OHIO RIVER DAM No. 13 -----		95.8
Lock on left bank. Length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
McMECHEN , Marshall Co., W. Va. (2,921)-----	LEFT BANK	95.8
MILEY RUN and BAR -----	RIGHT BANK	96.2
SHADYSIDE STATION , Belmont Co., Ohio-----	RIGHT BANK	96.8
Railroad: C. & P. Div. (Penna. lines).		
540. PULTNEY BEND LIGHT . Color White-----	LEFT BANK	97.0
GLASS WORKS , below Shadyside-----	RIGHT BANK	97.5
WEGEE RUN , Belmont Co., Ohio-----	RIGHT BANK	98.4
NEWMAN RUN -----	LEFT BANK	98.5
WEGEE COAL TIPPLE -----	RIGHT BANK	98.8
Railroad: C. & P. Div. (Penna. lines). Industries: Coal mining and shipping.		
GLENDALE , Marshall Co., W. Va. (156)-----	LEFT BANK	98.9
Principal industries: Coal mining and shipping. Railroads: Wheeling and Grafton; Ohio River Div. (B. & O. R. R.).		
539. LITTLE GRAVE CREEK LIGHT . Color White-----	RIGHT BANK	100.2
A long and wide bar extends along the left (W. Va.) bank. Keep to right near Ohio bank. Least depth of channel, open river 2.6 feet.		
LITTLE GRAVE CREEK -----	LEFT BANK	101.1
Mc PETERS, FORT PITT COAL CO. -----	RIGHT BANK	101.1
MOUNDSVILLE , County seat Marshall Co., W. Va. (8,918)-----	LEFT BANK	101.6
Seat of West Virginia penitentiary. Railroads: Wheeling and Grafton; also Ohio River Div. (B. & O.). Electric line to Wheeling, etc. Ferry to Ohio shore.		
BILLONS BOTTOM , Belmont Co., Ohio-----	RIGHT BANK	102.0
Railroads: (Dilles Sta.) C. & P. Div. (Penna. lines); Bellaire-Powhatan. Ferry to Moundsville, W. Va.		
BIG GRAVE CREEK -----	LEFT BANK	102.1
A high bar extends from West Virginia shore. Keep to right of bar near Ohio shore. Least channel, open river, 5.9 feet.		
538. BIG GRAVE CREEK LIGHT No. 1 . Color White-----	RIGHT BANK	102.5
537. BIG GRAVE CREEK LIGHT No. 2 . Color White-----	LEFT BANK	102.7
The width of river below this point diminishes to such extent as to give it the name of "The Narrows."		
BAKER RUN -----	LEFT BANK	102.9
BIG RUN -----	RIGHT BANK	103.9

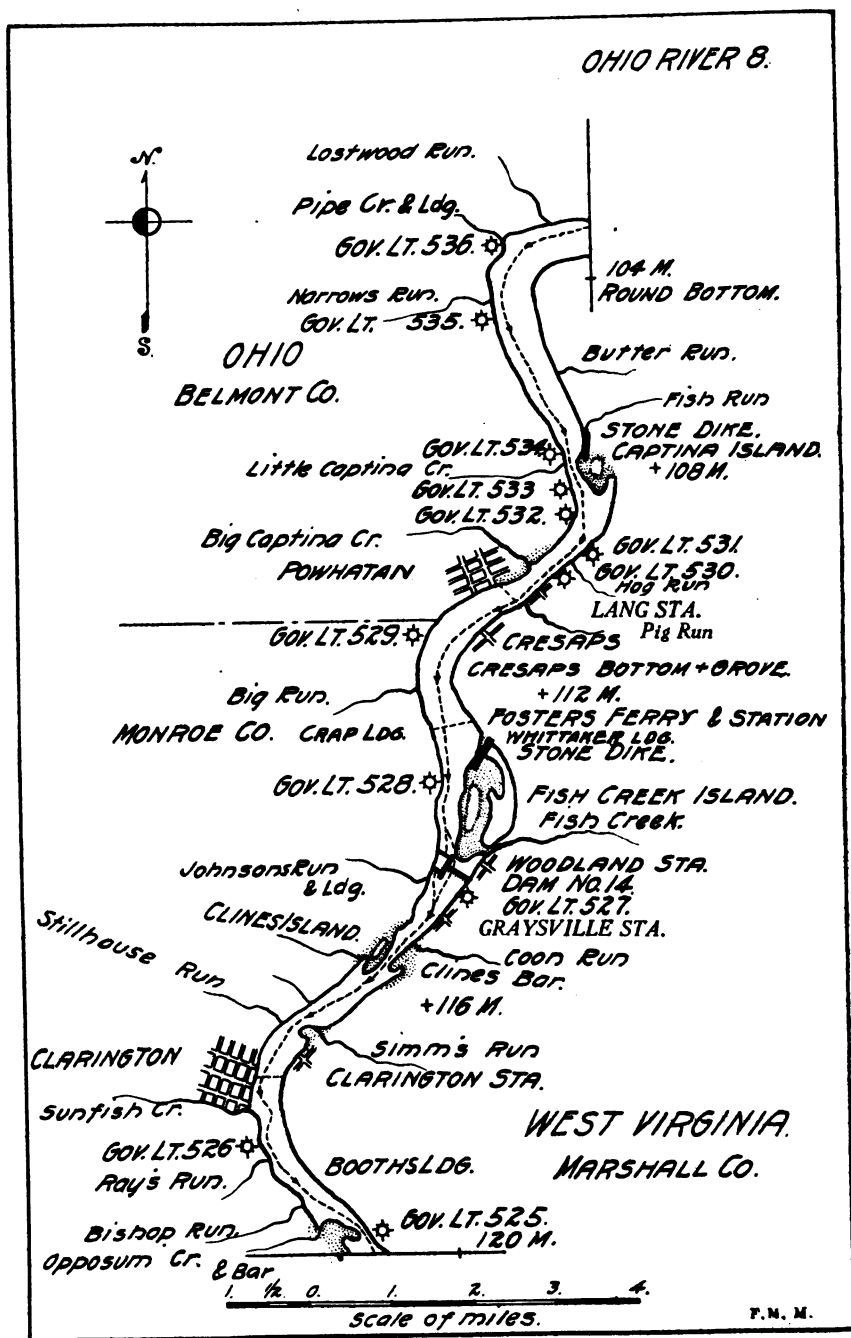


Chart No. 8.

Miles below
Pittsburgh.

LOSTWOOD RUN	RIGHT BANK	104.8
ROUND BOTTOM	LEFT BANK	104.6
A very fertile tract of land once owned by George Washington.		
PIPE CREEK	RIGHT BANK	104.7
536. PIPE CREEK LIGHT. Color White.	RIGHT BANK	104.7
PIPE CREEK LANDING	RIGHT BANK	104.8
NARROWS RUN	RIGHT BANK	105.7
535. NARROWS LIGHT. Color White.	RIGHT BANK	105.7
A deep, narrow portion of the river.		
BUTTER RUN	LEFT BANK	106.5
FISH RUN	LEFT BANK	107.2
STONE DIKE to head of CAPTINA ISLAND	LEFT BANK	107.3
Keep to right of Captina Island. Shoal water head and foot of island; least depth, 1.4 feet in open river.		
534. CAPTINA ISLAND LIGHT No. 5. Color White.	RIGHT BANK	107.5
Above mouth of Little Captina Creek.		
LITTLE CAPTINA CREEK	RIGHT BANK	107.7
533. CAPTINA ISLAND LIGHT No. 3. Color White.	RIGHT BANK	108.1
532. CAPTINA ISLAND DAYMARK No. 1. Color White.	RIGHT BANK	108.5
531. CAPTINA ISLAND LIGHT No. 2. Color White.	LEFT BANK	108.7
530. HOG RUN LIGHT. Color White.	LEFT BANK	109.4
BIG CAPTINA CREEK	RIGHT BANK	109.5
POWHATAN, Belmont Co., Ohio (415)	RIGHT BANK	109.6
Industries: Flour mill, general store, hotel, etc. Railroad: C. & P. Div. (Penna. lines), terminus of line from Bellaire. Town located just below mouth of Big Captina Creek.		
LANG STATION, Marshall Co., W. Va.	LEFT BANK	109.6
Ohio River Div. (B. & O. R. R.).		
PIG RUN	LEFT BANK	109.6
CRESAPS, Marshall Co., W. Va.	LEFT BANK	110.5
Ohio River Div. (B. & O.) Post office, etc. Named for the Cresap family, prominent at time of early settlement of valley.		
529. CRESAP BEND LIGHT. Color White.	RIGHT BANK	110.9
HIG RUN	RIGHT BANK	111.5
CRESAPS BOTTOM and CRESAPS GROVE, Marshall Co., W. Va.	LEFT BANK	111.5
FOSTER'S (Ferry) and STATION, Marshall Co., W. Va., also WHITTAKERS LANDING, W. Va.	LEFT BANK	112.2
CRAP LANDING, Monroe Co., Ohio	RIGHT BANK	112.2
DIKE to head of FISH CREEK ISLAND	LEFT OF CHANNEL	112.3
Keep to right of island. Shonleat water near head, about 2.3 feet in open river.		
528. FISH CREEK ISLAND LIGHT. Color White.	RIGHT BANK	113.0
FISH CREEK, below Island	LEFT BANK	113.6
WOODLAND STATION, Marshall Co., W. Va. (160)	LEFT BANK	113.7
Railroad: Ohio River Div. B. & O. R. R.		
OHIO RIVER DAM No. 14		113.8
Lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
JOHNSONS RUN and LANDING, Monroe Co., Ohio	RIGHT BANK	114.1
527. HUB LANDING LIGHT. Color White.	LEFT BANK	114.4
GRAYSVILLE STATION, Marshall Co., W. Va. (Higgs Landing)	LEFT BANK	114.6
Railroad: Ohio River Div. (B. & O. R. R.).		
COON RUN and CLINES BAR	LEFT BANK	114.8
CLINES ISLAND	RIGHT BANK	115.2
Channel narrow. Shoal at head, 2.8 feet in open river.		
STILLHOUSE RUN	RIGHT BANK	116.6
SIMMS RUN	LEFT BANK	116.7
CLARINGTON STATION, Marshall Co., W. Va. (31)	LEFT BANK	117.1
Railroad: Ohio River Div. B. & O. R. R.		
CLARINGTON, Monroe Co., Ohio (784)	RIGHT BANK	117.7
Located just above mouth of Sunfish Creek.		
SUNFISH CREEK	RIGHT BANK	117.8
526. SUNFISH RIPLE LIGHT. Color White.	RIGHT BANK	118.4
BAYS RUN	RIGHT BANK	118.4
BOOTH'S LANDING, Marshall Co., W. Va.	LEFT BANK	118.5
BISHOPS RUN	RIGHT BANK	118.6
OPOSSUM CREEK and BAR	RIGHT BANK	119.6
Keep near left bank. Shoalest water at head, 1.4 feet.		
525. OPOSSUM CREEK LIGHT. Color White.	LEFT BANK	119.7

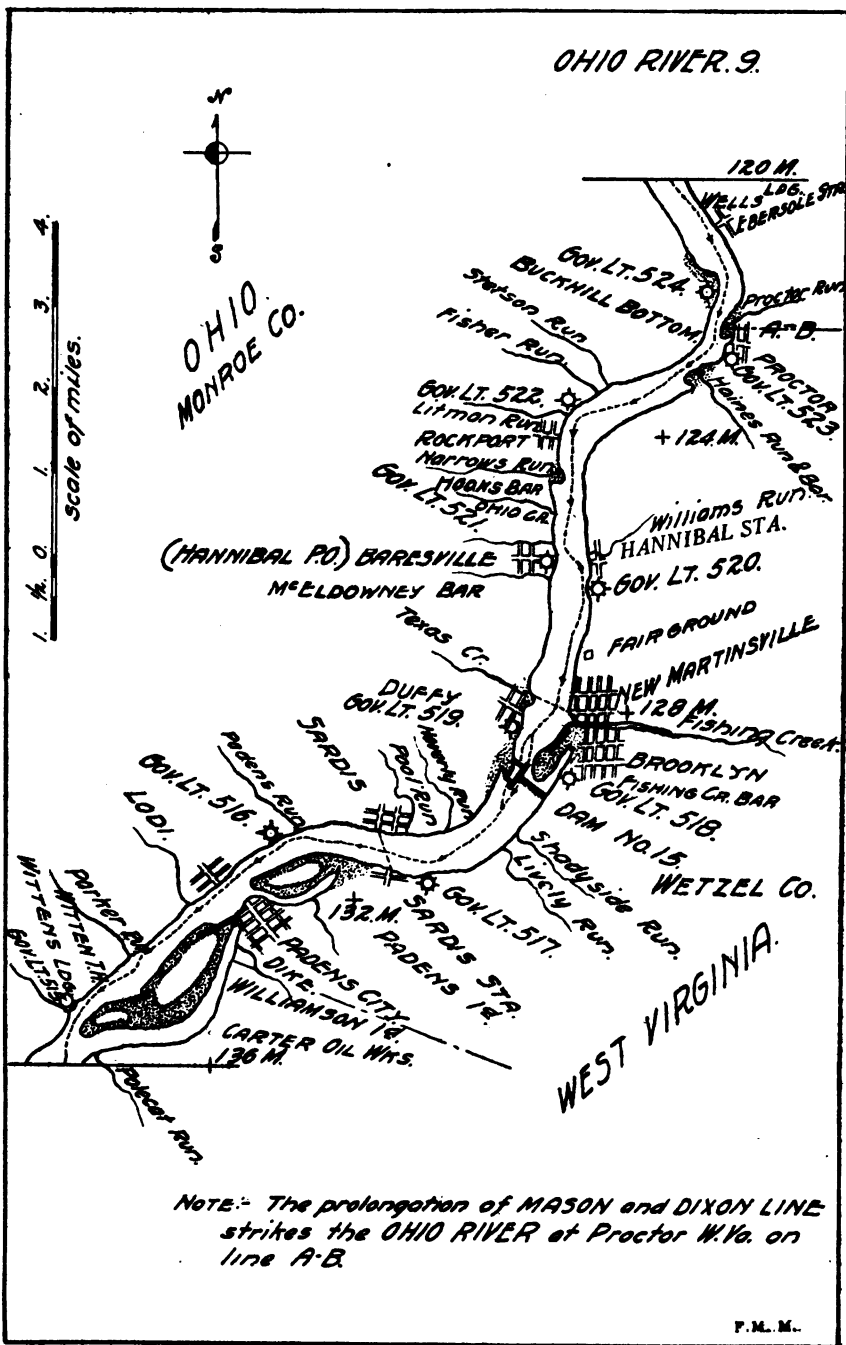


Chart No. 9.

Miles below
Pittsburgh.

WELLS LANDING, Marshall Co., W. Va.	LEFT BANK	120.8
EBERSOLE LANDING and STATION, Marshall Co., W. Va.	LEFT BANK	120.7
Railroads: Ohio River Div. (B. & O. R. R.).		
524. PROCTOR LANDING DAYMARK No. 1. Color White.	RIGHT BANK	121.5
PROCTOR RUN and BAR.	LEFT BANK	122.0
Channel past bar toward right bank. Shoal at foot 2.4 feet, open river.		
MASON and DIXON'S LINE.	LEFT BANK	
PROCTOR, Wetzel Co., W. Va. (265).	LEFT BANK	122.2
Railroad: Ohio River Div. (B. & O. R. R.).		
528. PROCTOR LANDING LIGHT No. 2. Color White.	LEFT BANK	122.5
BUCKHILL BOTTOM.	RIGHT BANK	122.5
HAINES RUN and BAR.	LEFT BANK	122.9
Channel near right bank. Good water.		
STETSON RUN.	RIGHT BANK	123.9
FISHER RUN.	RIGHT BANK	124.2
522. LITMAN LANDING LIGHT. Color White.	RIGHT BANK	124.5
Just above Litman Run.		
ROCKPORT, Monroe Co., Ohio.	RIGHT BANK	124.7
HOOKS BAR.	RIGHT BANK	125.2
NARROWS RUN.	RIGHT BANK	125.2
WILLIAMS RUN.	LEFT BANK	126.1
521. HANNIBAL LIGHT. Color White.	RIGHT BANK	126.2
At town of Baresville, Ohio (Hannibal P. O.). Bares Run lower end of town.		
HANNIBAL STATION, Wetzel Co., W. Va.	LEFT BANK	126.2
Railroad: Ohio River Div. (B. & O. R. R.).		
520. McELDOWNEY BAR LIGHT. Color White.	LEFT BANK	126.6
Bar toward right bank. Channel between bar and left bank. Least depth, head, 3.2 feet, in open river.		
NEW MARTINSVILLE FAIR GROUNDS.	LEFT BANK	127.5
NEW MARTINSVILLE, County seat Wetzel Co., W. Va. (2,176).	LEFT BANK	128.0
Railroads: Ohio River Div. (B. & O. R. R.); Short line to Clarksburg, W. Va., etc., B. & O. R. R. Electric line to Sistersville, W. Va., 9.7 miles.		
Fishing Creek below town. Steam ferry to Duffy, Ohio.		
DUFFY, Monroe Co., Ohio (50).	RIGHT BANK	128.1
Below mouth of Texas Creek.		
FISHING CREEK.	LEFT BANK	128.2
BROOKLYN, Wetzel Co., W. Va. (627).	LEFT BANK	128.3
STONE DIKE, head of FISHING CREEK BAR.	LEFT BANK	128.3
Keep to right of bar. Least depth, channel near head, 2 feet, open river.		
OHIO RIVER DAM No. 15.		128.9
Lock on right bank: length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
SHADYSIDE RUN.	LEFT BANK	129.7
LIVELY RUN.	LEFT BANK	130.2
HAVERLY RUN.	RIGHT BANK	130.7
517. GLENN ROCKS LIGHT. Color White.	LEFT BANK	131.1
SARDIS STATION, Wetzel Co., W. Va.	LEFT BANK	131.4
Railroad: Ohio River Div. (B. & O. R. R.). Electric lines between New Martinsville and Sistersville.		
POOL RUN.	RIGHT BANK	131.4
SARDIS, Monroe Co., Ohio (650).	RIGHT BANK	131.5
Industries: Planing mill, etc. Steam ferry to Sardis Station, W. Va.		
PADENS RUN.	RIGHT BANK	131.9
PADENS ISLAND.	LEFT BANK	132.0
Keep to right of island.		
516. SARDIS BEND LIGHT. Color White.	RIGHT BANK	132.3
PADENS CITY, Wetzel Co., W. Va. (165).	LEFT BANK	133.0
Industries: Steel rolling mill, oil development, refining, and transportation. Railroad: Ohio River Div. (B. & O. R. R.). Electric line between New Martinsville and Sistersville.		
LODI, Monroe Co., Ohio.	RIGHT BANK	133.1
STONE DIKE, head of WILLIAMSON ISLAND.	LEFT BANK	133.4
Keep to right of island. Least water in channel near foot, 2.4 feet, open river. Avoid another small dike projecting from foot of island.		
PARKER RUN and GARDEN LANDING, Monroe Co., Ohio.	RIGHT BANK	134.6
CARTER OIL WORKS, Tyler Co., W. Va.	LEFT BANK	134.9
WITTEN LANDING, Monroe Co., Ohio.	RIGHT BANK	135.2
515. WITTEN TOWHEAD LIGHT. Color White.	RIGHT BANK	135.2
WITTEN TOWHEAD, head.	LEFT OF CHANNEL	135.4
POLECAT RUN.	LEFT BANK	135.8

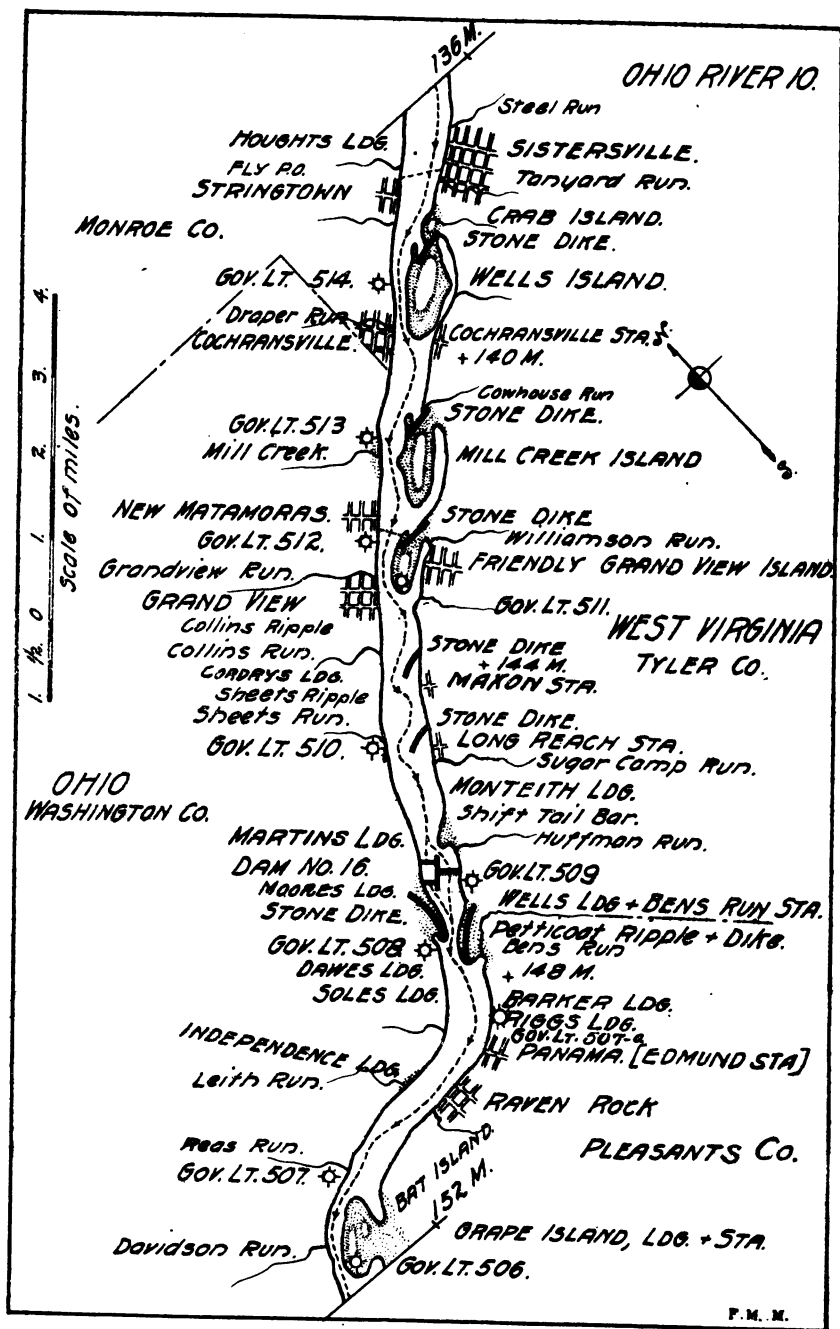


Chart No. 10.

Miles below
Pittsburgh.

HOUGHTS LANDING, Monroe Co., Ohio-----	RIGHT BANK	186.5
STEEL RUN-----	LEFT BANK	187.0
SISTERSVILLE, Tyler Co., W. Va. (2,684)-----	LEFT BANK	187.8
Outfitting point for oil-well construction; general merchandising, etc. Railroad: Ohio River Div. (B. & O. R. R.). Steam ferry to Stringtown, Ohio.		
TANYARD RUN-----	LEFT BANK	187.7
STRINGTOWN, Washington Co., Ohio, Fly P. O. (100)-----	RIGHT BANK	187.8
Steam ferry to Sistersville, W. Va.		
CRAB ISLAND-----	LEFT BANK	188.0
Channel to right of island. Good depths of water.		
STONE DIKE head of Wells Island-----	LEFT BANK	188.3
Channel to right of island; least depth 2.2 feet, open river near foot.		
514. WELLS ISLAND LIGHT. Color White-----	RIGHT BANK	188.9
COCHRANVILLE, Washington Co., Ohio-----	RIGHT BANK	189.6
Skiff ferry to Cochranville Station, W. Va.		
COCHRANVILLE STATION, Tyler Co., W. Va.-----	LEFT BANK	189.6
Railroad: Ohio River Div. (B. & O. R. R.). Skiff ferry to Cochranville, O.		
STONE DIKE head of Mill Creek Island-----	LEFT BANK	140.8
Channel to right of island; least depth 2.5 feet, in open river near head.		
COWHOUSE RUN-----	LEFT BANK	140.8
513. MILL CREEK LIGHT. Color White. (Above creek and its bar)-----	RIGHT BANK	141.1
MILL CREEK-----	RIGHT BANK	141.2
STONE DIKE, head of Grandview Island-----	LEFT BANK	141.9
Channel to right of island; least depth 3 feet in open river opposite lower end of New Matamoras.		
NEW MATAMORAS, Washington Co., Ohio (711)-----	RIGHT BANK	142.0
Steam ferry to Friendly, W. Va.		
512. MATAMORAS LIGHT. Color White-----	RIGHT BANK	142.2
WILLIAMSON RUN-----	LEFT BANK	142.2
FRIENDLY, Tyler Co., W. Va. (217)-----	LEFT BANK	142.3
Industries: Flouring mills, etc. Railroad: Ohio River Div. (B. & O. R. R.). Steam ferry to New Matamoras, Ohio.		
GRANDVIEW, Washington Co., Ohio (198)-----	RIGHT BANK	142.9
Industries: Sawmill, etc. Grandview Run northeast of town.		
511. GRANDVIEW ISLAND LIGHT. Color White-----	LEFT OF CHANNEL	142.9
Light on island near foot. Channel to right of island; least depth in open river 2.7 feet, below island.		
STONE DIKE-----	LEFT BANK	143.5
Head of Collins Ripple. Channel near right bank; least depth open river 1.9 feet, opposite Collins Run.		
COLLINS RUN and CORDRYS LANDING (Collins landing just below.)-----	RIGHT BANK	143.7
MAXON STATION, Tyler Co., W. Va.-----	LEFT BANK	144.0
Railroad: Ohio River Div. (B. & O. R. R.). Wells Run below.		
STONE DIKE-----	LEFT BANK	144.4
Head of Sheets Ripple. Channel at head is nearest left bank, but it curves in close to right bank at foot of dike, where least depth open river is 2 feet.		
SHEETS RUN-----	RIGHT BANK	144.6
510. SHEETS RIPPLE LIGHT. Color White-----	RIGHT BANK	144.7
Cochrans Landing just above.		
LONG REACH LANDING and STATION, Tyler Co., W. Va. (25)-----	LEFT BANK	144.7
Railroad: Ohio River Div. (B. & O. R. R.).		
SUGAR CAMP RUN-----	LEFT BANK	145.1
MONTETH LANDING, Tyler Co., W. Va.-----	LEFT BANK	145.4
SHIFT TAIL BAR-----	LEFT BANK	146.0
Channel near right bank. Least depth in open river 2.1 feet opposite Martins Run (R. B.).		
HUFFMAN RUN-----	LEFT BANK	146.1
MARTINS LANDING, Washington Co., Ohio (at mouth Martins Run)-----	RIGHT BANK	146.1
OHIO RIVER DAM No. 16-----		146.4
Lock on right bank; length, 600 feet; width, 110 feet; width navigable pass 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
509. PETTICOAT RIPPLE LIGHT. Color White-----	LEFT BANK	146.7
WELLS LANDING, Tyler Co., W. Va.-----	LEFT BANK	146.7
BENS RUN STATION, Tyler Co., W. Va. (61)-----	LEFT BANK	146.7
Railroad: Ohio River Div. (B. & O. R. R.).		
STONE DIKE-----	RIGHT BANK	146.8
MOORES LANDING at head of DIKE and DAWES POST OFFICE at foot.		
STONE DIKE-----	LEFT BANK	146.9
Petticoat Ripple between the two dikes, difficult in low water. Least depth in crossing near foot of dike 2.1 feet in open river.		
DAWES LANDING, Washington Co., Ohio (40)-----	RIGHT BANK	147.2
508. PETTICOAT BAR LIGHT. Color White-----	RIGHT BANK	147.2
SOLES LANDING, Washington Co., Ohio-----	RIGHT BANK	148.0
BARKERS LANDING, Pleasants Co., W. Va.-----	LEFT BANK	148.3
RIGGS LANDING, Pleasants Co., W. Va.-----	LEFT BANK	148.5
507-a. RIGGS LANDING LIGHT. Color White-----	LEFT BANK	148.5
PANAMA or EDWIND STATION, Pleasants Co., W. Va.-----	LEFT BANK	149.0
INDEPENDENCE LANDING, Washington Co., Ohio-----	RIGHT BANK	149.5
DAVENOCK, Pleasants Co., W. Va. (140)-----	LEFT BANK	149.5
Railroad: Ohio River Div. (B. & O. R. R.).		
LEITH RUN-----	RIGHT BANK	149.8
REAS RUN-----	RIGHT BANK	150.9
507. GRAPE and BAT ISLANDS LIGHT No. 1. Color White-----	RIGHT BANK	151.2
Channel to right of both islands; least depth near head 2.2 feet in open river.		
506. GRAPE and BAT ISLANDS LIGHT No. 2. Color White.-----	LEFT OF CHANNEL	151.7
(Lower end Grape Island.)		
DAVIDSON RUN-----	RIGHT BANK	151.7
GRAPE ISLAND LANDING and STATION, Pleasants Co., W. Va.-----	LEFT BANK	152.0
Railroad: Ohio River Div. (B. & O. R. R.).		

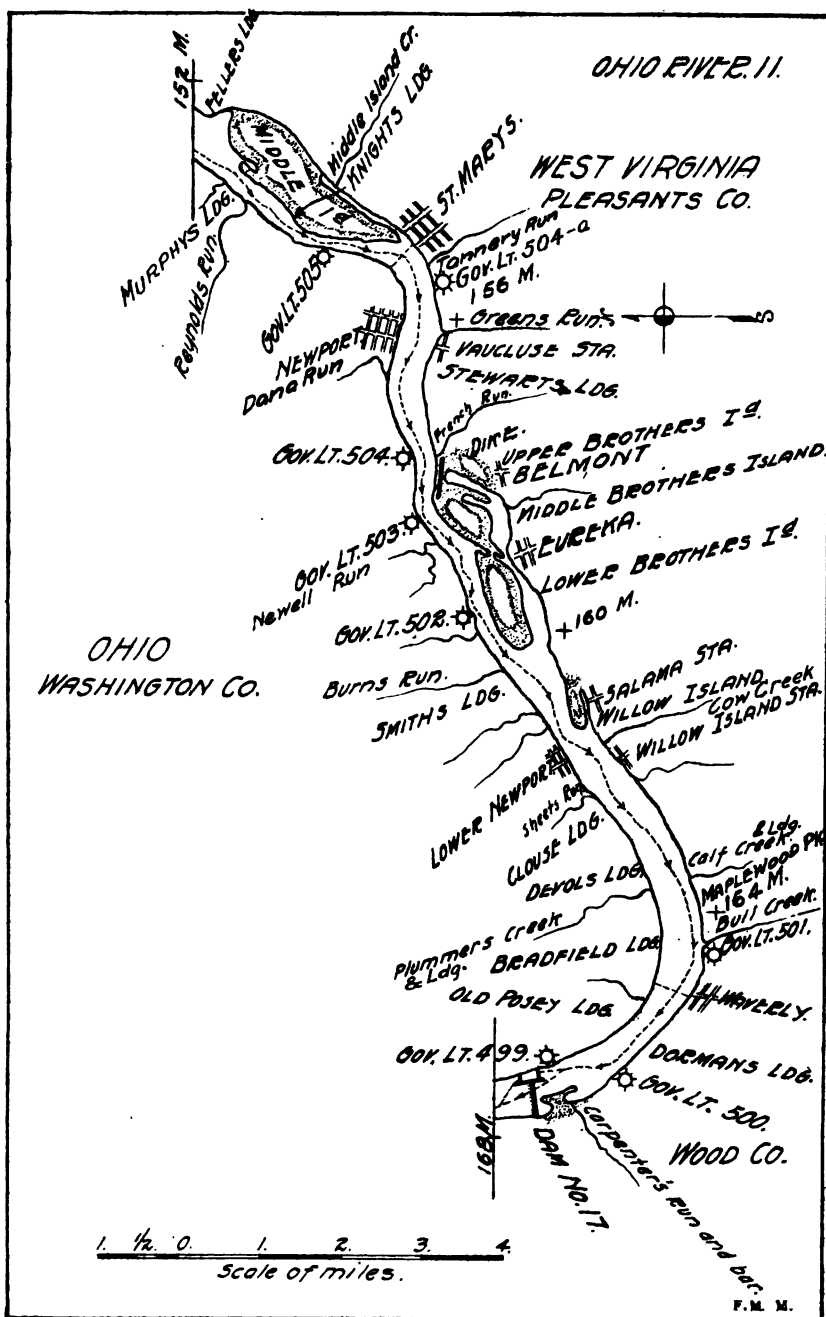


Chart No. 11.

Miles below
Pittsburgh.

FELLERS LANDING, Pleasants Co., W. Va.	LEFT BANK	152.8
MIDDLE ISLAND	LEFT BANK	153.6
The island extends for more than 2 miles. Channel to right; least depth, 2.1 feet, near head, open river. Middle Creek discharges into back channel.		
MURPHYS LANDING, Washington Co., Ohio	RIGHT BANK	152.9
BEYNOLDS RUN	RIGHT BANK	153.0
KNIGHTS LANDING, on Island	LEFT OF CHANNEL	153.8
MIDDLE ISLAND CREEK	LEFT BANK	153.7
505. FERGUSON LANE LIGHT. Color White	RIGHT BANK	154.0
ST. MARYS, County seat, Pleasants Co., W. Va. (1,358)	LEFT BANK	154.9
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to right bank.		
TANNERY RUN	LEFT BANK	155.2
504-a. ST. MARYS BEND LIGHT. Color White	LEFT BANK	155.4
NEWPORT, Washington Co., Ohio (400)	RIGHT BANK	156.0
Industries: Flouring mill. Ferry to West Virginia.		
DANA RUN	RIGHT BANK	156.1
GREENS RUN	LEFT BANK	156.1
VAUCUSE STATION, Pleasants Co., W. Va.	LEFT BANK	156.2
Railroad: Ohio River Div. (B. & O. R. R.).		
STEWARTS LANDING, Pleasants Co., W. Va.	LEFT BANK	156.6
CRIB DIKE to head of Middle Brother	LEFT BANK	157.5
Channel to right. The three islands (upper, middle, and lower) extend for nearly 3 miles. Least depth 3.2 feet in open river near foot of lower island. Belmont Landing, W. Va. Railroad: Ohio River Div. (B. & O. R. R.).		
FRENCH RUN	LEFT BANK	157.5
504. BROTHERS LIGHT No. 3. Color Red	RIGHT BANK	157.6
BELMONT, Pleasants Co., W. Va. (202)	LEFT BANK	157.6
503. BROTHERS LIGHT No. 1. Color White	RIGHT BANK	158.1
NEWELL RUN (Post office), Ohio (95), and NEWELL RUN	RIGHT BANK	158.1
EUREKA, Pleasants Co., W. Va. (180)	LEFT BANK	159.1
The town on back channel. Railroad: Ohio River Div. (B. & O. R. R.).		
502. ROWLANDS LANDING LIGHT. Color White	RIGHT BANK	159.6
BURNS RUN	RIGHT BANK	160.1
SMITHS LANDING, Washington Co., Ohio	RIGHT BANK	160.4
SALAMA STATION, Pleasants Co., W. Va. (60)	LEFT BANK	161.0
Railroad: Ohio River Div. (B. & O. R. R.).		
WILLOW ISLAND	LEFT BANK	161.8
COW CREEK	LEFT BANK	161.4
WILLOW ISLAND STATION and Post Office, W. Va. (87)	LEFT BANK	161.7
Railroad: Ohio River Div. (B. & O. R. R.).		
LOWER NEWPORT, Washington Co., Ohio	RIGHT BANK	161.8
Barkers Landing.		
SHEETS RUN	RIGHT BANK	162.2
CLOUSE LANDING, Washington Co., Ohio	RIGHT BANK	162.3
DEVOLS LANDING, Washington Co., Ohio	RIGHT BANK	163.2
CALF CREEK and LANDING	LEFT BANK	163.5
MAPLEWOOD PARK, Wood Co., W. Va.. Calf Creek Landing	LEFT BANK	163.5
PLUMMERS CREEK and LANDING, Washington Co., Ohio, and Plummers Creek	RIGHT BANK	163.7
BULL CREEK	LEFT BANK	164.4
501. BULL CREEK LIGHT. Color White	LEFT BANK	164.4
BRADFIELD LANDING, Washington Co., Ohio	RIGHT BANK	164.5
WAYERLY, Wood Co., W. Va. (175)	LEFT BANK	165.0
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Ohio.		
OLD POSEY LANDING, Washington Co., Ohio	RIGHT BANK	165.5
DORMANS LANDING, Wood Co., W. Va.	LEFT BANK	166.0
500. CARPENTER BAR LIGHT. Color White	LEFT BANK	166.4
CARPENTERS RUN and BAR	LEFT BANK	167.0
Channel past bar near right bank; least depth at head 1.7 feet in open river.		
OHIO RIVER DAM No. 17		167.4
Lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		

Chart No. 12.

Miles below
Pittsburgh.

LITTLE MUSKINGUM RIVER -----	RIGHT BANK	168.1
Town of BENO, Washington Co., Ohio (75)-----	RIGHT BANK	168.2
498. MARIETTA ISLAND LIGHT . Color White-----	RIGHT BANK	168.7
DIKE and CONCRETE DAM -----	LEFT BANK	169.0
Head of Marietta or Kerrs Island.		
Warning, DANGER. A concrete dam 6 feet above low water extends from island to the left (W. Va.) shore. Keep to right of island. Least depth in channel 1.8 feet open river, about 1 mile below. The island once owned by Matthew Kerr; his son Hamilton Kerr was an Indian ranger employed at Fort Harmar and Marietta.		
DAVIS RUN -----	LEFT BANK	169.0
497. DUCK CREEK LIGHT . Color White-----	RIGHT BANK	170.3
Duck Creek just below light.		
CRIB DIKE foot of Marietta Island -----		171.3
Top of dike about 6½ feet above low water. Keep to right.		
MARIETTA BRIDGE -----		171.3
Channel span, 325.5 feet; height, 94.2 feet.		
496. MARIETTA LIGHT . Color White with Red Front-----	RIGHT BANK	171.4
MARIETTA (county seat), Washington Co., Ohio (12,923)-----	RIGHT BANK	171.4
Principal industries: Manufacture of glass, stoves, machinery, and furniture; flouing, oil refining, and boat building. Railroads: C. & M. Div. (Penna. lines; Marietta Div. and Z. & O. Div. of B. & O. R. R.; Toledo & Ohio Central R. R. Electric line to Parkersburg, W. Va., via Williamstown, W. Va.; also to Beverly, Washington Co., Ohio.		
WILLIAMSTOWN , Wood Co., W. Va. (1,189)-----	LEFT BANK	171.6
Principal industries: Manufacture of glass and oil refining. Railroad: Ohio River Div. (B. & O. R. R.). Electric line to Marietta, Ohio, and Parkersburg, W. Va.		
MUSKINGUM RIVER -----	RIGHT BANK	171.7
Separates Marietta proper from West Marietta. (For Muskingum River, see Tributary streams.)		
WEST MARIETTA -----	RIGHT BANK	171.8
MARIETTA OIL WELLS -----	RIGHT BANK	172.5
ARGAND OIL WORKS -----	RIGHT BANK	173.0
BIG RUN -----	LEFT BANK	173.6
STONE DIKE to head of Muskingum Island -----	LEFT BANK	173.9
Keep to right of island. Least depth 2.2 feet near head of island, open river. Island about 3 miles long.		
495. MUSKINGUM ISLAND LIGHT . Color White-----	RIGHT BANK	174.1
REPPARTS LANDING , Washington Co., Ohio-----	RIGHT BANK	174.7
494. REPPART BAR LIGHT . Color White-----	RIGHT BANK	175.8
DYES LANDING , Washington Co., Ohio-----	RIGHT BANK	175.9
CONES LANDING , Washington Co., Ohio-----	RIGHT BANK	176.8
BRISCOE , Wood Co., W. Va-----	LEFT BANK	177.5
Railroad: Ohio River Div. (B. & O. R. R.). Electric line to Marietta, Ohio, via Williamstown; and to Parkersburg, W. Va.		
BRISCOE RUN -----	LEFT BANK	177.5
HALF WAY (or JAMES or VIENNA) ISLAND -----	RIGHT BANK	177.5
Channel to left of island. Least depth 1.1 feet open river.		
493. VIENNA ISLAND LIGHT . on Island. Color White-----	RIGHT OF CHANNEL	178.3
BAILEYS LANDING, CONSTITUTION , Washington Co., Ohio (75)-----	RIGHT BANK	178.4
Railroad: Marietta Div. (B. & O. R. R.).		
GREERS LANDING , Wood Co., W. Va-----	LEFT BANK	178.7
Railroad: Ohio River Div. (B. & O. R. R.). Electric line to Marietta, Ohio, via Williamstown; and to Parkersburg, W. Va.		
OHIO RIVER DAM No. 18 -----		179.3
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note direction and caution as in case of Dam No. 1, p. 25.		
BRIGGS LANDING and POST OFFICE , Washington Co., Ohio-----	RIGHT BANK	179.9
Railroad: Marietta Div. (B. & O. R. R.).		
492. NEAL ISLAND LIGHT No. 2 . Color White-----	LEFT BANK	179.9
Bells Landing, W. Va.		
STONE DIKE, to head of NEAL ISLAND -----	LEFT BANK	180.3
Channel to right of island. Least depth near head 1 foot scant, open river.		
491. NEAL ISLAND LIGHT No. 1 . Color White-----	RIGHT BANK	180.9
Above mouth of Crooked Creek.		
MULLIGANS LANDING , Washington Co., Ohio-----	RIGHT BANK	181.3
CONGRESS CREEK -----	RIGHT BANK	182.4
BELPRE , Washington Co., Ohio (1,249)-----	RIGHT BANK	182.5
Originally Belle-Prarie, settled April, 1789, by "Belpre Association," 40 in number, mostly from Marietta. Railroads: B. & O. R. R. main line and Marietta Div. (B. & O. R. R.).		
POND RUN -----	LEFT BANK	183.6
BALTIMORE & OHIO E. R. BRIDGE -----		183.7
Channel span, 326 feet; height, 90 feet.		
PARKERSBURG BRIDGE (highway)-----		183.76
Channel span, 756 feet; height, 90 feet.		
PARKERSBURG (county seat), Wood Co., W. Va. (17,842)-----	LEFT BANK	184.0
Railroads: B. & O. R. R. main line; Ohio River Div. (B. & O. R. R.); Marietta Div. (B. & O. R. R.); Parkersburg and Owensport Div. (B. & O. R. R.). Electric line to Marietta, Ohio.		

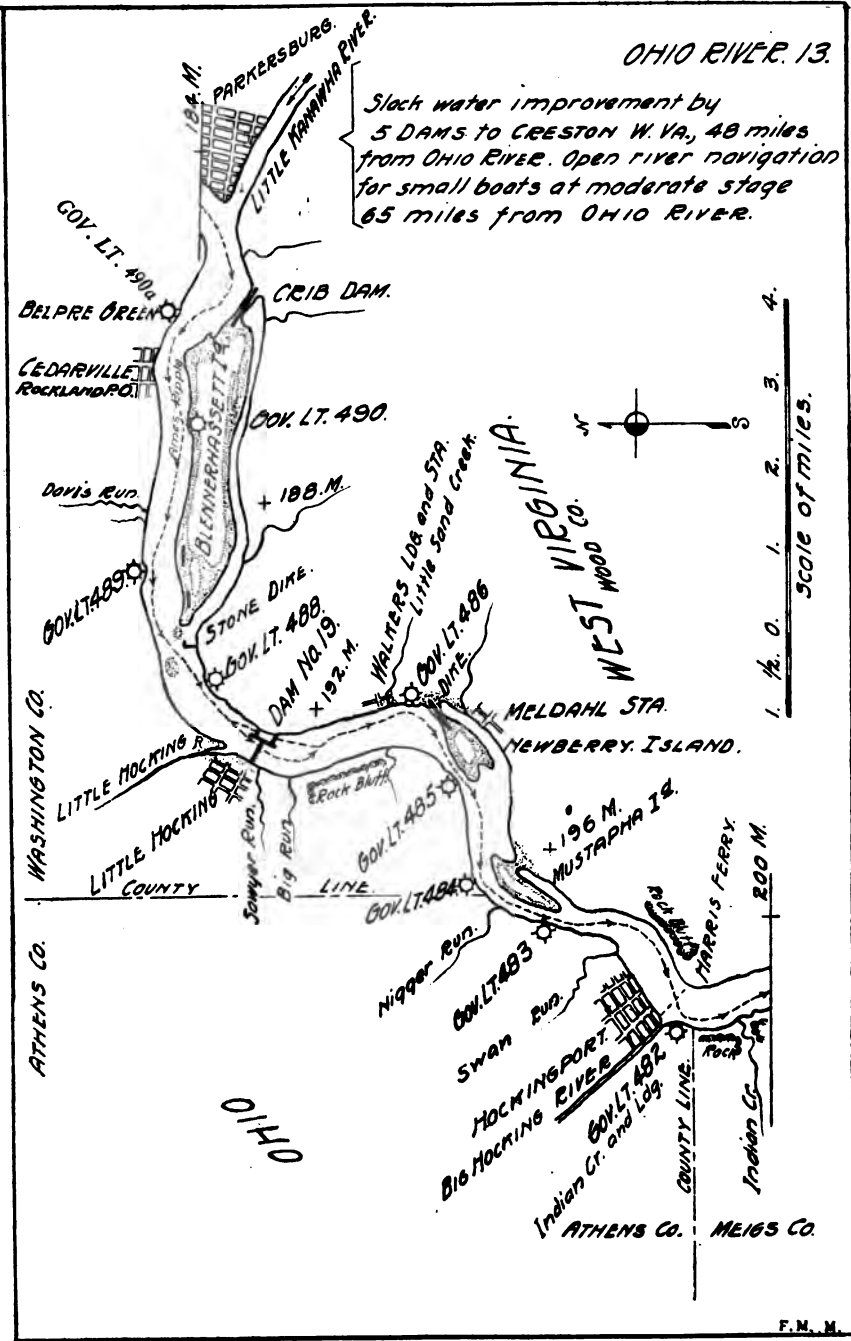


Chart No. 13.

Miles below
Pittsburgh.

LITTLE KANAWHA RIVER -----	LEFT BANK	184.8
Blackwater improvement of this river has been carried to near Creston, W. Va., a distance of 48 miles from the Ohio. Open navigation for small boats, during moderate stages, now possible for a distance of 65 miles from the Ohio. (For Little Kanawha River, see Tributary streams.)		
CRIB DAM , to head of Blennerhassett Island-----	LEFT BANK	185.4
Channel to right of island; least depth, 2.6 feet, opposite dam, open river.		
490-a. CROSS LANDING LIGHT , Color White-----	RIGHT BANK	185.5
Belpre Green Landing, Ohio.		
BLENNERHASSETT ISLAND , head-----		185.7
CEDARVILLE , Ohio; or Rockland Post Office. (200)-----	RIGHT BANK	186.4
Railroad: B. & O. S. W. R. R.		
490. AMES RIPPLE LIGHT , on island. Color White-----	LEFT OF CHANNEL	187.1
Shoal water; least depth, 1.2 feet in open river.		
DAVIS RUN (also PUTNAM CREEK)-----	RIGHT BANK	188.0
499. BLENNERHASSETT ISLAND LIGHT No. 1 , Color White-----	RIGHT BANK	188.9
Between this and the next light down stream the channel crosses gradually from the Ohio to the West Virginia shore.		
NOTE.—Remains of stone dike along island shore opposite the light and another at foot of small island must be avoided.		
STONE DIKE -----	LEFT BANK	189.5
Channel nearly midway between dike and right bank. Water shoal; least depth opposite dike, 2.1 feet, open river.		
488. BLENNERHASSETT ISLAND LIGHT No. 2 , Color White-----	LEFT BANK	189.9
LITTLE HOCKING RIVER -----	RIGHT BANK	191.1
LITTLE HOCKING , Washington Co., Ohio (850)-----	RIGHT BANK	191.3
Below mouth of river. Railroad: B. & O. S. W. R. R.		
OHIO RIVER DAM No. 19 -----		191.4
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 688 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
SAWYER RUN -----	RIGHT BANK	191.6
BIG RUN -----	RIGHT BANK	191.9
WALKERS LANDING and STATION , Wood Co., W. Va.-----	LEFT BANK	192.8
Railroad: Ohio River Div. (B. & O. R. R.).		
LITTLE SAND CREEK -----	LEFT BANK	193.0
486. NEWBERRY BAR LIGHT , Color White-----	LEFT BANK	193.3
STONE DIKE -----	LEFT BANK	193.5
Extends to head of Newberry Island. Channel to right of island, narrow, with least depth, head of island, 1.8 feet, open river.		
MELDAHL STATION , Wood Co., W. Va. Back channel-----	LEFT BANK	193.8
Railroad: Ohio River Div. (B. & O. R. R.).		
485. OAKES LANDING LIGHT , Color Red-----	RIGHT BANK	194.5
MUSTAPHA ISLAND , head-----	LEFT BANK	195.7
The back channel is wide but shoal; keep to the right of island. The right-hand channel is fairly deep except at foot of island, where there is about 1.5 feet, open river.		
484. MUSTAPHA ISLAND LIGHT No. 3 , Color White-----	RIGHT BANK	195.9
NIGGEE RUN -----	RIGHT BANK	196.1
483. MUSTAPHA ISLAND LIGHT No. 1 , Color Red-----	RIGHT BANK	196.9
Avoid large boulders along right shore below light.		
SWAN RUN -----	RIGHT BANK	197.4
HARRIS FERRY , Wood Co., W. Va.-----	LEFT BANK	198.4
Skiff ferry to Hockingport, Ohio.		
HOCKINGPORT , Athens Co., Ohio (198)-----	RIGHT BANK	198.5
Skiff ferry to Harris Station, W. Va. Railroad: Ohio River Div. (B. & O. R. R.).		
BIG HOCKING RIVER -----	RIGHT BANK	198.6
In former times this river was considered navigable for a distance of about 70 miles to Lancaster, Ohio. (See Tributary streams.)		
482. BIG HOCKING LIGHT , Color white-----	RIGHT BANK	198.7
INDIAN CREEK and LANDING , Meigs Co., Ohio-----	RIGHT BANK	199.4

OHIO RIVER. 14.

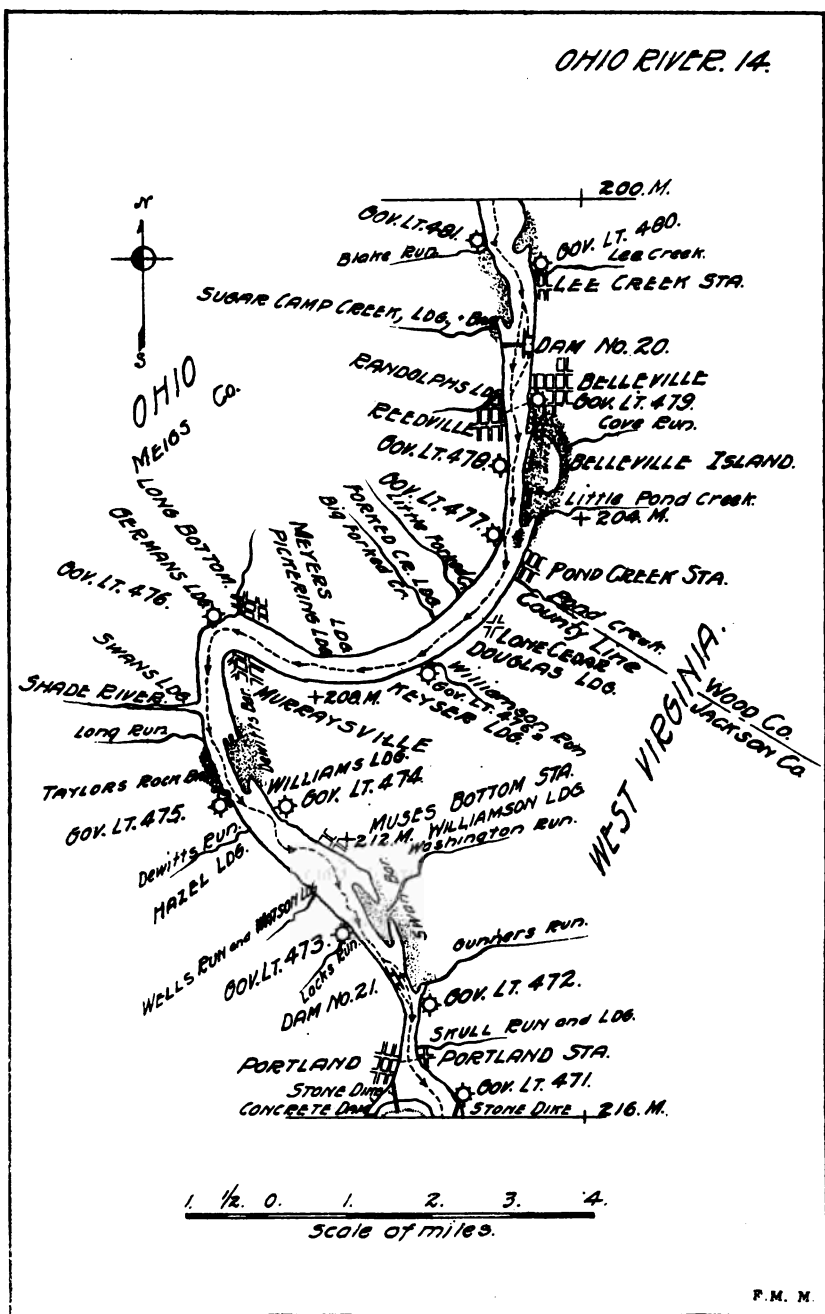


Chart No. 14.

Miles below
Pittsburgh.

481. LEE CREEK LIGHT No. 1. Color White-----	RIGHT BANK	200.6
(On the rock bluff above Blake Run.)		
480. LEE CREEK LIGHT No. 2. Color White-----	LEFT BANK	200.8
LEE CREEK, W. Va., below light.		
Railroad: Ohio River Div. (B. & O. R. R.)		
SUGAR CREEK LANDING, Ohio-----	RIGHT BANK	201.5
(Mouth of Sugar Camp Creek.)		
OHIO RIVER DAM No. 20-----		201.7
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
RANDOLPHS LANDING, Meigs Co., Ohio-----	RIGHT BANK	202.5
479. BELLEVILLE LIGHT. Color White-----	LEFT BANK	202.5
BELLEVILLE, Wood Co., W. Va. (250)-----	LEFT BANK	202.5
Railroad: Ohio River Div. (B. & O. R. R.)		
BEEDVILLE, Meigs Co., Ohio (216)-----	RIGHT BANK	202.9
STONE DIKE-----	LEFT BANK	203.0
From left bank to head of Belleville Island. Also two stone dikes on island shore. Channel to right of island; least depth, near foot, 1.6 feet in open river.		
478. BELLEVILLE ISLAND DAYMARK No. 3. Color White-----	RIGHT BANK	203.3
LITTLE POND CREEK-----	LEFT BANK	204.0
477. BELLEVILLE ISLAND LIGHT No. 1. Color White-----	RIGHT BANK	204.2
POND CREEK STATION, Wood Co., W. Va. (69) above Little Pond Creek-----		204.3
Pond Station. Railroad: Ohio River Div. (B. & O. R. R.). Also Pond Creek Landing at mouth of Pond Creek.		
LITTLE FORKED CREEK and LANDING-----	RIGHT BANK	205.4
DOUGLAS LANDING, LONE CEDAR, Jackson Co., W. Va-----	LEFT BANK	205.9
Railroad: Ohio River Div. (B. & O. R. R.)		
BIG FORKED CREEK-----	RIGHT BANK	205.9
WILLIAMSON RUN-----	LEFT BANK	206.5
476a. NEPTUNE LIGHT. Color White-----	LEFT BANK	206.6
KEYSER LANDING, Jackson Co., W. Va-----	LEFT BANK	207.1
MEYERS LANDING, Meigs Co., Ohio-----	RIGHT BANK	207.5
PICKERING LANDING, Meigs Co., Ohio-----	RIGHT BANK	207.7
LONG BOTTOM, Meigs Co., Ohio (200)-----	RIGHT BANK	208.8
Industry: Flouring mill.		
MURRAYSVILLE, Jackson Co., W. Va. (115)-----	LEFT BANK	208.9
Industries: Sawmill, grindstone quarries, etc. Railroad: Ohio River Div. (B. & O. R. R.)		
GERMANS LANDING, Meigs Co., Ohio-----	RIGHT BANK	209.0
476. SHADE RIVER BEND LIGHT. Color White-----	RIGHT BANK	209.1
For more than half a mile below this light, large boulders lie along the Ohio bank. Channel nearly middle of the river.		
SWANS LANDING, Meigs Co., Ohio-----	RIGHT BANK	209.7
SHADE RIVER-----	RIGHT BANK	209.9
LONG RUN-----	RIGHT BANK	210.3
DEWITTS BAR-----	LEFT BANK	210.5
Channel to right of bar. Least depth, near foot, 4.6 feet, open river.		
475. DEWITTS BAR LIGHT No. 1. Color White-----	RIGHT BANK	210.8
At Taylors Bar Landing, Ohio.		
WILLIAMS LANDING, Jackson Co., W. Va-----	LEFT BANK	210.8
474. DEWITTS BAR DAYMARK No. 2. Color White-----	LEFT BANK	211.2
DEWITTS RUN and HAZEL LANDING, Meigs Co., Ohio-----	RIGHT BANK	211.3
Industry: Sawmill.		
WILLIAMSON LANDING, Jackson Co., W. Va-----	LEFT BANK	212.1
Muses Bottom Station, Jackson Co., W. Va. (38).		
Railroad: Ohio River Div. (B. & O. R. R.)		
WELLS RUN and WATSONS LANDING, Meigs Co., Ohio-----	RIGHT BANK	212.5
473. SWAN BAR LIGHT. Color White-----	RIGHT BANK	212.8
Channel near right bank. Least depth, a little above the light, 2 feet, open river.		
LOCKS RUN-----	RIGHT BANK	212.8
WASHINGTON RUN-----	LEFT BANK	213.2
OHIO RIVER DAM No. 21-----		213.8
Lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
GUNNERS (or WHEATON) RUN-----	LEFT BANK	214.2
472. BUFFINGTON ISLAND LIGHT No. 6. Color White-----	LEFT BANK	214.5
(Just below McKinleys Landing, W. Va.)		
SKULL RUN and LANDING, Jackson Co., W. Va. (24)-----	LEFT BANK	215.0
PORTLAND STATION, Jackson Co., W. Va-----	LEFT BANK	215.2
Railroad: Ohio River Div. (B. & O. R. R.). Skiff ferry to Portland, Ohio.		
PORTLAND, Meigs Co., Ohio (158)-----	RIGHT BANK	215.8
Business: Country trading. Skiff ferry to Portland Station, W. Va.		
OLD STONE DIKE-----	RIGHT BANK	215.5
From right bank to head of Buffington Island; also, one-half mile below, a concrete dam closing back channel. Keep to left and rather near island.		
471. BUFFINGTON ISLAND LIGHT No. 4. Color White-----	LEFT BANK	215.8
STONE DIKE-----	LEFT BANK	215.9
Crescent shaped. This dike incloses dangerous rock reefs. Keep about midway between dike and island shore. Least depth near foot of dike, 1.3 feet, open river.		

OHIO RIVER. 15.

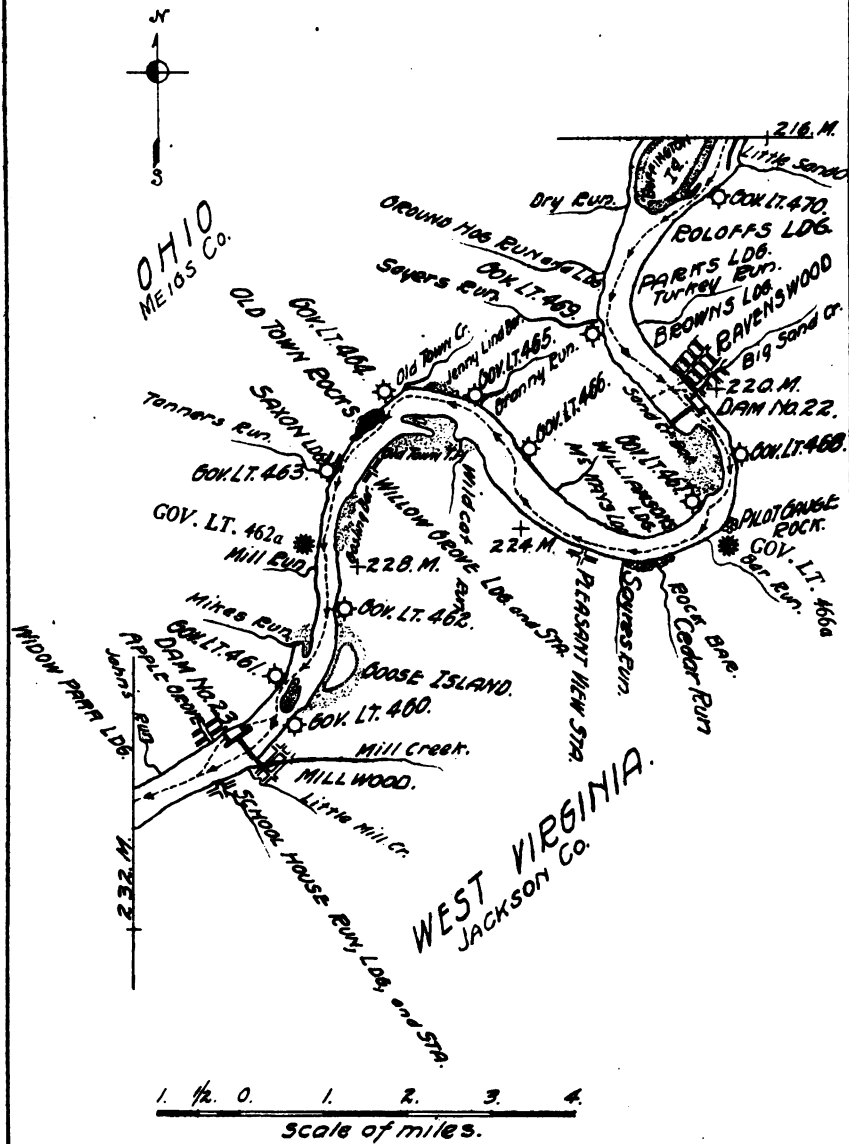


Chart No. 15.

Miles below
Pittsburgh.

LITTLE SAND CREEK	LEFT BANK	216.3
470. BUFFINGTON ISLAND LIGHT No. 2. Color White	LEFT BANK	216.6
DRY RUN	RIGHT BANK	217.1
BOLOFFS LANDING, Jackson Co., W. Va.	LEFT BANK	217.3
GROUNDHOG RUN and LANDING, Meigs Co., Ohio.	RIGHT BANK	218.0
PARKS LANDING, Jackson Co., W. Va.	LEFT BANK	218.1
469. RAVENSWOOD BEND LIGHT. Color White	RIGHT BANK	218.5
At Sayres Run Landing, Ohio, below creek.		
TURKEY RUN	LEFT BANK	218.7
BROWNS LANDING, Jackson Co., W. Va.	LEFT BANK	218.9
RAVENSWOOD, Jackson Co., W. Va. (1,081)	LEFT BANK	219.8
Principal industries: Flour and saw mills, canning factory, etc. Railroad: Ohio River Div., also Ravenswood and Spencer Div. (B. & O. R. R.). Ferry to Ohio shore.		
BIG SAND CREEK	LEFT BANK	220.0
OHIO RIVER DAM No. 22		220.1
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
468. SAND CREEK LIGHT No. 4. Color White	LEFT BANK	220.7
467. SAND CREEK LIGHT No. 1. Color White	RIGHT BANK	221.3
PILOT GAUGE ROCK, Jackson Co., W. Va.	LEFT BANK	221.4
466-a. SAND CREEK LIGHT No. 2. Color White	LEFT BANK	221.7
WILLIAMSON LANDING, Meigs Co., Ohio	RIGHT BANK	222.0
BAR RUN	LEFT BANK	222.0
CEDAR RUN	LEFT BANK	222.8
Rock bar along left bank above run.		
SAYRES RUN	LEFT BANK	222.9
McKAYS LANDING, Meigs Co., Ohio.	RIGHT BANK	222.9
PLEASANT VIEW LANDING and STATION, Jackson Co., W. Va.	LEFT BANK	223.5
Railroad: Ohio River Div. (B. & O. R. R.).		
466. GRANNY RUN DAYMARK No. 3. Color White	RIGHT BANK	224.0
465. GRANNY RUN LIGHT No. 1. Color White	RIGHT BANK	224.9
(At Enochs Landing, Ohio, mouth of Granny Run.) Keep toward right bank to avoid "Old Town Towhead," and also avoid Jenny Lind Bar on right bank. Least depth, foot of towhead, 8.4 feet, open river.		
WILDCAT RUN	LEFT BANK	225.0
JENNY LIND BAR	RIGHT BANK	225.5
OLD TOWN CREEK	RIGHT BANK	225.5
464. OLDTOWN ISLAND LIGHT. Color White	RIGHT BANK	225.7
OLDTOWN ROCKS, head.	RIGHT BANK	226.3
WILLOW GROVE LANDING and STATION, Jackson Co., W. Va.	LEFT BANK	226.6
Railroad: Ohio River Div. (B. & O. R. R.).		
463. TANNERS RUN LIGHT. Color White	RIGHT BANK	227.0
(Above the run, at Saxon Landing, Ohio.)		
GOSLING BAR, head.	LEFT BANK	227.3
This bar lies close to left bank; keep to right. Least depth past bar 3.1 feet, open river.		
462-a. SAYRE LANDING LIGHT. Color White	RIGHT BANK	228.0
MILL RUN	RIGHT BANK	228.1
462. GOOSE ISLAND LIGHT No. 2. Color White	LEFT BANK	228.8
(Above mouth of Spring Run.)		
GOOSE ISLAND	LEFT BANK	228.8
This island lies close to left bank. Keep near right bank (Ohio shore).		
MIKES RUN	RIGHT BANK	229.1
461. GOOSE ISLAND LIGHT No. 1. Color White	RIGHT BANK	229.4
Chinkapin Bar begins just below. Keep near right bank. Least depth, near foot of bar, 3.2 feet, open river.		
460. RIPLEY LANDING LIGHT. Color White	LEFT BANK	229.9
Ripley landing, Jackson Co., W. Va.		
MILL CREEK	LEFT BANK	230.6
OHIO RIVER DAM No. 23		230.6
Under construction, 1920. When completed, lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution given for Dam No. 1, p. 25.		
MILLWOOD, Jackson Co., W. Va. (\$35)	LEFT BANK	230.7
At mouth of Big Mill Creek. Industry: Sawmill. Railroads: Ohio River Div. and Ripley and Mill Creek Valley Div. (B. & O. R. R.). Little Mill Creek below town.		
LITTLE MILL CREEK	LEFT BANK	230.7
APPLE GROVE, Meigs Co., Ohio (90)	RIGHT BANK	230.8
SCHOOLHOUSE RUN LANDING, Jackson Co., W. Va.	LEFT BANK	231.4
Railroad: Ohio River Div. (B. & O. R. R.).		
JOHN RUN	RIGHT BANK	231.5
WIDOW PARR LANDING, Meigs Co., Ohio	RIGHT BANK	231.8

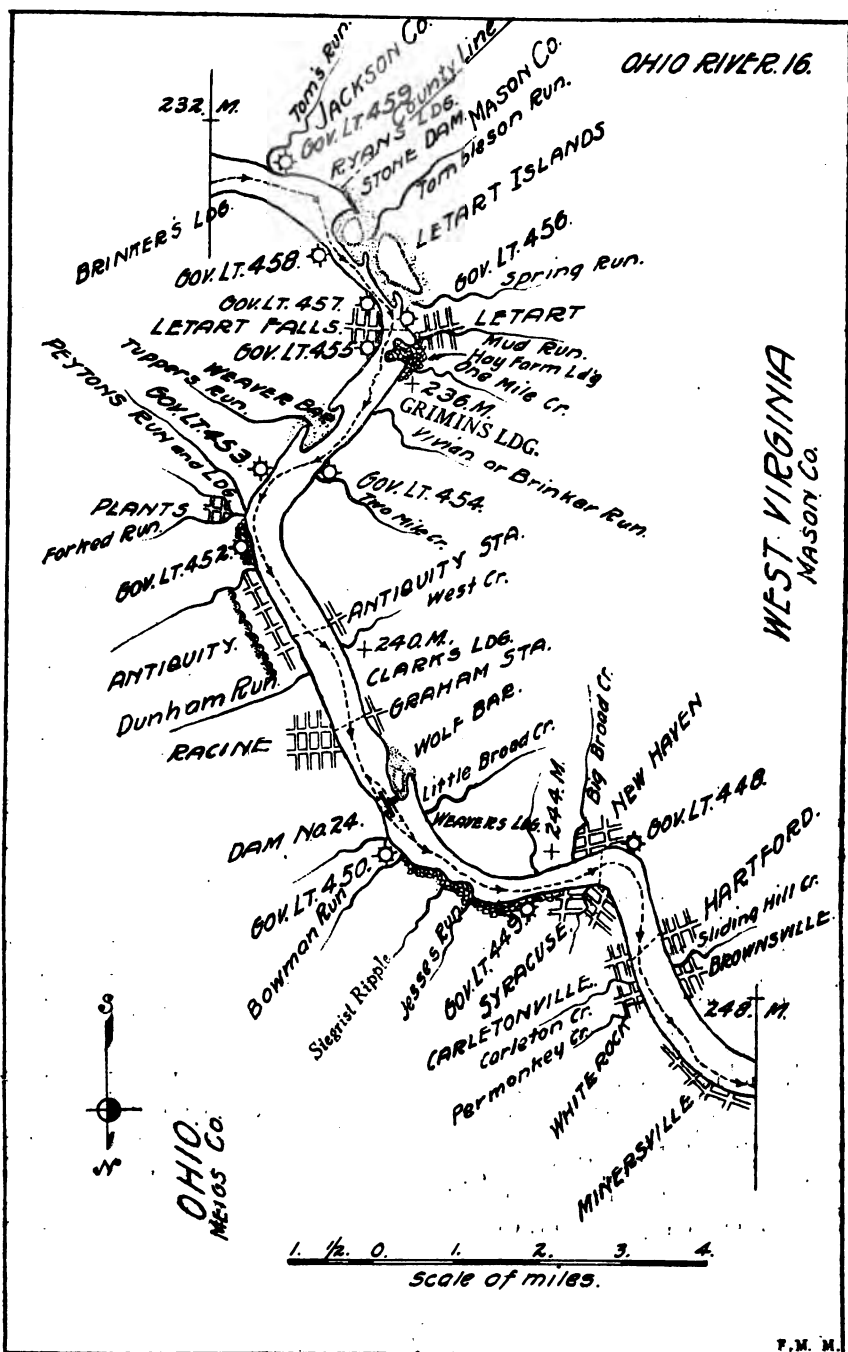


Chart No. 16.

Miles below
Pittsburgh.

GRINKERS LANDING , Meigs Co., Ohio.	RIGHT BANK	232.5
459. TOMS RUN LIGHT , Color White.	LEFT BANK	232.6
Below mouth of Toms Run.		
RYANS LANDING , Jackson Co., W. Va.	LEFT BANK	233.4
458. LETART LANDING LIGHT , Color White.	RIGHT BANK	233.6
At Alexanders Landing, Meigs Co., Ohio.		
STONE DIKE		233.7
From left bank to head upper Letart Island. Keep to right of islands. Channel narrow and shoal; least depth, just below foot of Upper Island, 2.2 feet, open river. The general locality, known as Letart Falls, was considered very dangerous in the early days of navigation, not only because of shoal water past the islands but also on account of the abrupt descent and the rocks in the falls proper; these rocks have in part been removed.		
TOMBLESON RUN	LEFT BANK	234.2
457. LETART FALLS LIGHT No. 3 , Color White.	RIGHT BANK	234.3
At upper landing for town of Letart Falls.		
456. LETART FALLS LIGHT No. 2 , Color White.	LEFT BANK	235.0
SPRING RUN	LEFT BANK	235.2
LETART , Mason Co., W. Va.	LEFT BANK	235.2
LETART FALLS , Meigs Co., Ohio (850)	RIGHT BANK	235.3
Ferry to Letart, W. Va.		
MUD RUN	LEFT BANK	235.4
455. LETART FALLS LIGHT No. 1 , Color White.	RIGHT BANK	235.5
HAY FARM LANDING , W. Va.	LEFT BANK	235.5
ONE MILE CREEK	LEFT BANK	235.8
VIVIAN RUN and GRIMINS LANDING , Mason Co., W. Va.	LEFT BANK	236.4
WEAVER SHOALS (head) , WEAVER BAR	RIGHT BANK	236.5
Keep near left bank. Least depth, near head, 3.7 feet; open river.		
TIPPERS RUN	RIGHT BANK	237.1
454. PEYTON LANDING DAYMARK No. 2 , Color White.	LEFT BANK	237.2
TWO MILE CREEK	LEFT BANK	237.3
453. PEYTON LANDING LIGHT No. 1 , Color White.	RIGHT BANK	237.6
Johnsons Landing, Meigs Co., Ohio.		
PEXTONS RUN and LANDING	RIGHT BANK	238.0
PLANTS , Meigs Co., Ohio (25)	RIGHT BANK	238.3
FORKED RUN	RIGHT BANK	238.3
452. ANTIQUITY BEND LIGHT , Color White.	RIGHT BANK	238.3
ANTIQUITY STATION , Mason Co., W. Va.	LEFT BANK	238.4
ANTIQUITY , Meigs Co., Ohio (250)	RIGHT BANK	239.6
Principal industries: Boat building and general merchandising. A high rock bluff extends along the river back of the town.		
WEST CREEK	LEFT BANK	239.7
DUNKAN RUN	RIGHT BANK	240.0
CLARKS LANDING , Mason Co., W. Va.	LEFT BANK	240.5
GRAHAM'S STATION , Mason Co., W. Va. (100)	LEFT BANK	241.0
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Racine, Ohio.		
RACINE , Meigs Co., Ohio (540)	RIGHT BANK	241.1
Principal industries: Flouring mill, small-boat building, etc. Electric line to Pomeroy and Middleport, Ohio. Ferry to Grahams Station and Landing, W. Va.		
WOLF BAR	LEFT BANK	241.5
Channel to right of bar near Ohio shore. Least depth, foot of bar, 1.9 feet; open river.		
OHIO RIVER DAM No. 24		242.0
Lock on right bank; length, 900 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
WEAVERS LANDING , Mason Co., W. Va.	LEFT BANK	242.2
Industries: Sawmill and general merchandising.		
LITTLE BROAD CREEK	LEFT BANK	242.3
450. SIEGRIST RIPPLE LIGHT No. 3 , Color White.	RIGHT BANK	242.5
BOWMAN RUN	RIGHT BANK	242.8
SIEGRIST RIPPLE , Head.		243.0
The river narrow, and channel near right bank. Least depth, near head of ripple, 3.8 feet; open river.		
JESSES RUN	RIGHT BANK	243.1
449. SIEGRIST RIPPLE LIGHT No. 1 , Color White.	RIGHT BANK	243.8
(Below foot of ripple.)		
BIG BROAD CREEK	LEFT BANK	244.3
SYRACUSE , Meigs Co., Ohio (1,622)	RIGHT BANK	244.7
Principal industries: Salt manufacturing; coal mining; sawmill and general merchandising. Electric line to Racine and Middleport. Ferry to, New Haven, W. Va.		
NEW HAVEN , Mason Co., W. Va. (650)	LEFT BANK	244.7
Principal industries: Coal mining. Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Syracuse, Ohio.		
448. SLIDING HILL BEND LIGHT , Color White.	LEFT BANK	245.3
HARTFORD , Mason Co., W. Va. (358)	LEFT BANK	246.3
Principal industries: Coal and salt mining. Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Carletonville, Ohio.		
CARLETONVILLE , Meigs Co., Ohio (50)	RIGHT BANK	246.5
CARLETON CREEK	RIGHT BANK	246.6
SLIDING HILL CREEK	LEFT BANK	246.6
WHITE ROCK , Meigs Co., Ohio	RIGHT BANK	246.7
These are adjoining towns separated by Carleton Creek; Permonkey Creek below White Rock. Electric line to Racine and Middleport, Ohio.		
PERMONKEY CREEK	RIGHT BANK	246.7
BROWNSVILLE , Mason Co., W. Va.	LEFT BANK	246.7
MINERSVILLE , Meigs Co., Ohio (800)	RIGHT BANK	247.0
Industries: Salt and coal mining. Electric line, Racine and Middleport Ohio.		

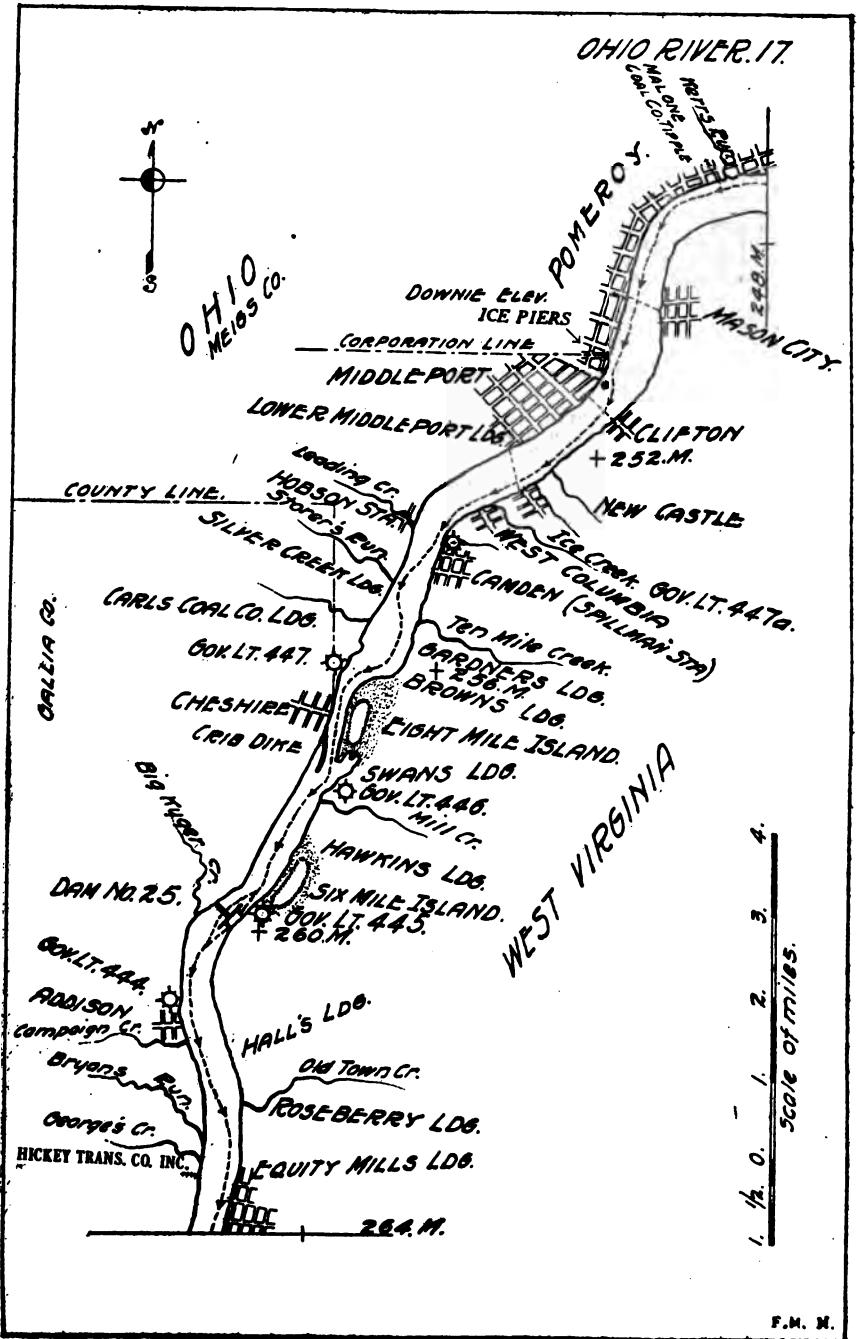


Chart No. 17.

Miles below
Pittsburgh.

KERRS RUN	RIGHT BANK	248.1
MALONE COAL CO. TIPPLE	RIGHT BANK	248.4
DOWNE FREIGHT ELEVATOR	RIGHT BANK	249.0
POMEROY, Meigs Co., Ohio (4,023)	RIGHT BANK	249.8
(The mileage given to public landing, above and below which the town extends.) County seat of Meigs County. Principal industries: Coal mining and salt works, iron mills, and general merchandising. Electric line: Racine, Ohio, and Middleport, Ohio. Ferry to Mason City, W. Va.		
MASON CITY, W. Va. (784)	LEFT BANK	249.9
Principal industry: Salt manufacturing. Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Pomeroy, Ohio.		
ICE PIERS (U. S.)	RIGHT BANK	251.0
These piers provide an ice harbor for river craft.		
MIDDLEPORT, Meigs Co., Ohio (3,194)	RIGHT BANK	251.5
Principal industries: Flouring mills, manufacture of machinery and brick, and also general merchandising. Railroad: Hocking Valley R. R. Electric line to Racine, Ohio. Ferry to Clifton, W. Va.		
CLIFTON, Mason Co., W. Va. (427)	LEFT BANK	251.5
Formerly had industries in glass and manufacture of salt. Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Middleport, Ohio.		
LOWER MIDDLEPORT LANDING, Meigs Co., Ohio	RIGHT BANK	252.3
Industries: Paving brick manufacturing. Electric line to Racine. Ferry (skiff) to New Castle, W. Va.		
NEW CASTLE, Mason Co., W. Va. (162)	LEFT BANK	252.7
Ferry (skiff) to Lower Middleport Landing.		
ICE CREEK	LEFT BANK	253.1
WEST COLUMBIA, Mason Co., W. Va. (205)	LEFT BANK	253.1
Railroad: Ohio River Div. (B. & O. R. R.)		
LEADING CREEK	RIGHT BANK	253.5
Hobson Station. Hocking Valley R. R.		
CAMDEN, Mason Co., W. Va.	LEFT BANK	254.0
Spillman Station, W. Va. Industries: Manufacture of paving brick (Camden Clay Co.). Railroad: Ohio River Div. (B. & O. R. R.).		
447-A. CAMDEN COAL WORKS LIGHT. Color White	LEFT BANK	254.0
STORERS RUN	RIGHT BANK	254.0
SILVER CREEK LANDING, Meigs Co., Ohio	RIGHT BANK	254.8
Industries: Coal mining (Silver Creek Coal Co.). Railroad: Hocking Valley R. R.		
TEN MILE CREEK	LEFT BANK	255.1
CARLS COAL CO. LANDING, Meigs Co., Ohio	RIGHT BANK	255.5
Industries: Coal mining. Railroad: Ohio River Div. (B. & O. R. R.)		
GARDNERS LANDING, Mason Co., W. Va.	LEFT BANK	255.7
BROWNS LANDING, Mason Co., W. Va.	LEFT BANK	256.0
447. EIGHT MILE ISLAND LIGHT No. 1. Color White	RIGHT BANK	256.5
EIGHT-MILE ISLAND (head)	LEFT BANK	256.5
Keep to right of island. Least depth, opposite Government light, 3.3 feet open river.		
CHESHIRE, Gallia Co., Ohio (250)	RIGHT BANK	257.0
Railroad: Hocking Valley R. R.		
CRIB DIKE	RIGHT BANK	257.4
Least depth about midlength dike, 3.8 feet; open river.		
SWANS LANDING	LEFT BANK	257.5
446. EIGHT MILE ISLAND LIGHT, No. 2. Color White	LEFT BANK	257.8
MILL CREEK	LEFT BANK	258.0
HAWKINS LANDING and head SIX MILE ISLAND, Mason Co., W. Va.	LEFT BANK	259.0
The island indents West Virginia shore, and channel is nearly in middle of river. Good depth of water.		
WACHIE STATION, Mason Co., W. Va.	LEFT BANK	259.7
Railroad: Ohio River Div. (B. & O. R. R.).		
OHIO RIVER DAM No. 25		260.0
Under construction, 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
BIG KYGER CREEK	RIGHT BANK	260.6
444. CAMPAIGN BEND LIGHT. Color White	RIGHT BANK	261.3
ADDISON, Gallia Co., Ohio (125)	RIGHT BANK	261.3
Railroad: Hocking Valley R. R. Campaign Creek below town.		
CAMPAIGN CREEK	RIGHT BANK	261.7
HALLS LANDING, Mason Co., W. Va.	LEFT BANK	261.8
OLD TOWN CREEK	LEFT BANK	262.4
ROSEBERRY LANDING, Mason Co., W. Va.	LEFT BANK	262.4
BRYANS RUN	RIGHT BANK	262.0
EQUITY MILLS LANDING	LEFT BANK	262.3
(Upper Point Pleasant, Mason Co., W. Va.) Roundhouse, Ohio River Div. (B. & O. R. R.).		
GEORGES CREEK	RIGHT BANK	262.4
MICKEY TRANSPORTATION CO. INCLINE	RIGHT BANK	262.5

Chart No. 18.

Miles below
Pittsburgh.

KANAWHA & MICHIGAN RY. BRIDGE. Channel span, 400 feet; height, 91.4 feet.	-----	264.3
FAIRHAVEN LANDING (KANAWHA), Gallia Co., Ohio (78).-----	RIGHT BANK	264.5
Coal incline, Hatfield Coal Co. Railroad: Kanawha & Michigan Ry. Electric line to Gallipolis. Ferry to Point Pleasant.	-----	
VARIAN COAL INCLINE.-----	LEFT BANK	264.5
POINT PLEASANT, Mason Co., W. Va. (2,045).-----	LEFT BANK	264.8
Public wharf. County seat of Mason Co. Principal industries: Boat-building with dry dock. Railroads: Ohio River Div. (B. & O. R. R.), and Kanawha & Michigan Ry. Ferry to Fairhaven Landing, Ohio.	-----	
KANAWHA RIVER.-----	LEFT BANK	264.9
Slackwater improvement extends to a point near Loup Creek Shoal, a distance of about 88 miles from the Ohio, and open river navigation for small boats at moderate stages extends about 2 miles farther. (For Kanawha River, see Tributary streams.)	-----	
HENDERSON, Mason Co., W. Va. (286).-----	LEFT BANK	265.0
KANAWHA BAR.-----	LEFT BANK	265.7
Channel to right near Ohio shore. Depth not less than 4 feet, open river.	-----	
397. KANAWHA BAR LIGHT. Color White.-----	LEFT BANK	266.0
Above mouth of One Mile Creek.	-----	
SALT CREEK.-----	LEFT BANK	266.6
MOYASSES RUN.-----	RIGHT BANK	266.7
BAILEYS LANDING and inclines to Hocking Valley R. R.-----	RIGHT BANK	266.8
TWO MILE CREEK.-----	LEFT BANK	266.8
GALLIPOLIS ISLAND, head.-----	RIGHT OF CHANNEL	267.7
Keep to left of island. Least depth not less than 5 feet.	-----	
THREE MILE CREEK.-----	LEFT BANK	267.9
396. GALLIPOLIS ISLAND LIGHT No. 1, on island. Color White.-----	-----	268.2
395. GALLIPOLIS ISLAND DAYMARK No. 2. Color White.-----	LEFT BANK	268.5
ICE PIERS (U. S.).-----	RIGHT BANK	269.0
GALLIPOLIS, Gallia Co., Ohio (5,560) (the county seat).-----	RIGHT BANK	269.1
Public wharf. The town extends above on back channel. The present town of Gallipolis laid out in 1832. Principal industries: Manufacturing stoves and furniture, foundry and machine shops. The State Asylum for Epileptics situated here. Railroads: Kanawha & Michigan, and Hocking Valley R. R. Electric line to Kanawha (Fairhaven) Ferry. Ferry to West Virginia shore.	-----	
ARLINGTON RUN.-----	LEFT BANK	269.3
FERRY LANDING FOR GALLIPOLIS STATION, W. VA.-----	LEFT BANK	269.3
Railroad: Ohio River Div. (B. & O. R. R.).	-----	
CHICAMAUGA CREEK.-----	RIGHT BANK	269.5
MIAMI POWDER CO.-----	RIGHT BANK	270.0
HOUSES RUN.-----	RIGHT BANK	270.4
HALLIDAYS LANDING, Gallia Co., Ohio.-----	RIGHT BANK	270.6
MUD RUN.-----	RIGHT BANK	271.3
394. CLABION RIPPLE LIGHT. Color White.-----	RIGHT BANK	271.4
LONG RUN and LANDING, Gallia Co., Ohio.-----	RIGHT BANK	271.6
CLABION RIPPLE, head.-----	RIGHT BANK	271.8
Channel near left bank; depth nearly 10 feet, open river.	-----	
ROCK RUN.-----	RIGHT BANK	272.0
CLIPPER MILLS, Gallia Co., Ohio.-----	RIGHT BANK	272.3
393. BEALE LANDING LIGHT. Color White.-----	LEFT BANK	272.9
STEPHENS LANDING, Mason Co., W. Va.-----	LEFT BANK	273.5
392. RACCOON ISLAND LIGHT No. 1. Color White.-----	RIGHT BANK	274.0
FULLERS RUN.-----	RIGHT BANK	274.2
STONE DIKE from right bank to RACCOON ISLAND.-----	-----	274.3
Keep to left of island. Channel near left bank. Least depth, foot of island, 3 feet.	-----	
391. RACCOON ISLAND LIGHT No. 2. Color White.-----	LEFT BANK	274.4
SARDIS CREEK (back channel).-----	RIGHT BANK	274.3
CRAB CREEK.-----	LEFT BANK	275.2
RACCOON CREEK (back channel).-----	RIGHT BANK	275.2
390. BEN LOMOND DAYMARK. Color White.-----	LEFT BANK	276.6
At Ben Lomond Landing and Station, W. Va. (45). Railroad: Ohio River Div. (B. & O. R. R.).	-----	
BURBLES RUN (back channel).-----	RIGHT BANK	276.9
WILD CAT HOLLOW.-----	LEFT BANK	276.9
OUTONS LANDING, Gallia Co., Ohio.-----	RIGHT BANK	277.6
OHIO RIVER DAM No. 26.-----	-----	278.0
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 600 feet. Note directions and caution as in case of Dam No. 1, p. 25.	-----	
TENS RUN—CAMBRELLS LANDING, OHIO.-----	RIGHT BANK	278.2
389. CHAMBERSBURG LIGHT. Color White.-----	RIGHT BANK	278.6
CHAMBERSBURG, Gallia Co., OHIO.-----	RIGHT BANK	278.8
Principal industries: Sawmill, general merchandising.	-----	
FLATFOOT CREEK and LANDING, Mason Co., W. Va.-----	LEFT BANK	279.5
BLADENSBURG, Gallia Co., OHIO.-----	RIGHT BANK	279.8
Ferry to West Virginia shore.	-----	

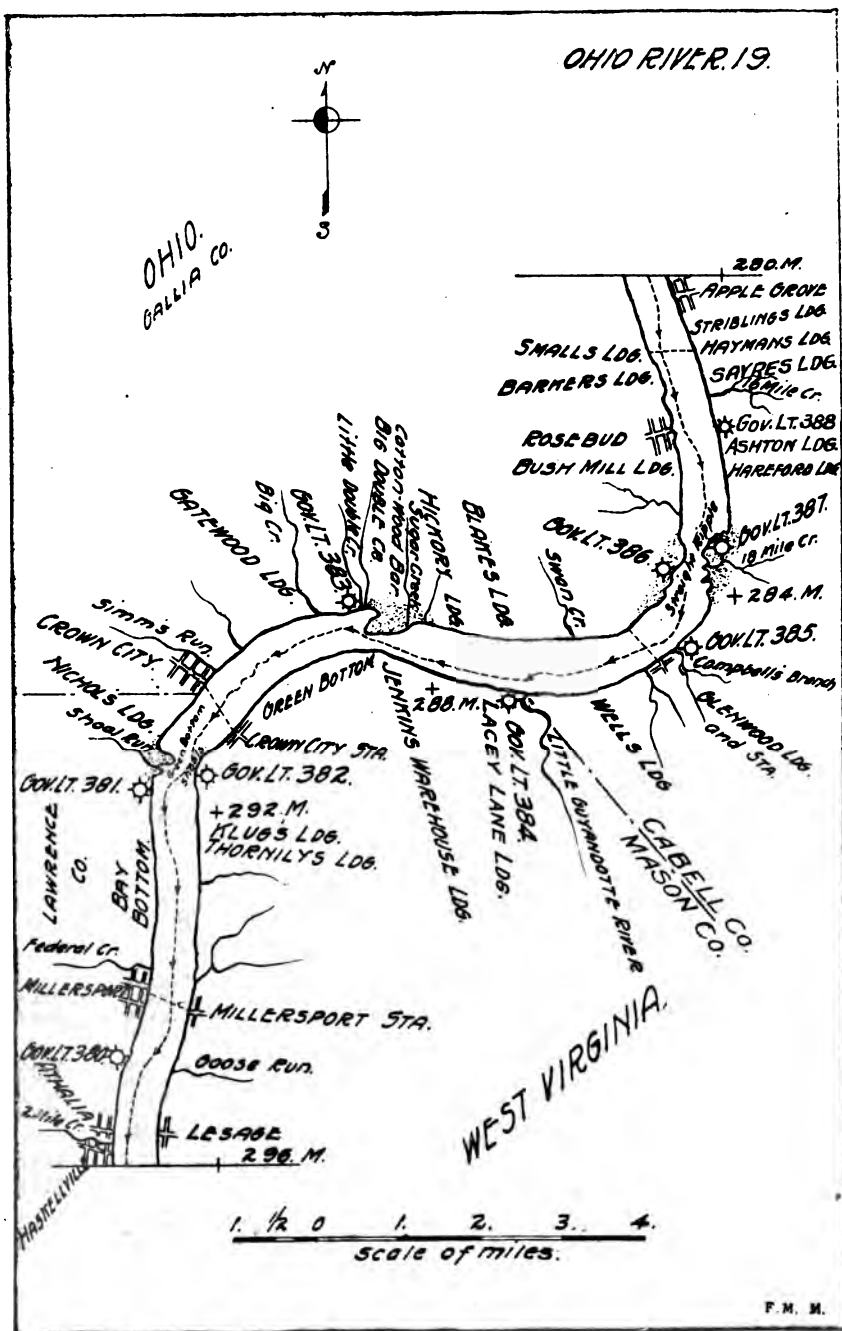


Chart No. 19.

Miles below
Pittsburgh.

APPLE GROVE, Mason Co., W. Va. (47)-----	LEFT BANK	280.0
STREIBLINGS LANDING, Mason Co., W. Va.-----	LEFT BANK	280.7
SMALLS LANDING, Gallia Co., Ohio-----	RIGHT BANK	280.9
Local industry: Coal mine. Ferry to Haymans Landing, W. Va.		
HAYMANS LANDING, Mason Co., W. Va.-----	LEFT BANK	281.0
Mercers Bottom Station (50). Railroad: Ohio River Div. (B. & O. R. R.).		
Ferry to Smalls Landing, Ohio.		
BARBERS LANDING, Gallia Co., Ohio-----	RIGHT BANK	281.4
SAYRES LANDING-----	LEFT BANK	281.6
SIXTEEN MILE CREEK-----	LEFT BANK	281.7
388. ASHTON LIGHT, Color White-----	LEFT BANK	282.0
Ashton Landing, W. Va.		
ROSEBUD, Gallia Co., Ohio-----	RIGHT BANK	282.1
BUSH MILL LANDING, Gallia Co., Ohio-----	RIGHT BANK	282.5
HAREFORD LANDING, Mason Co., W. Va.-----	LEFT BANK	282.6
387. STRAIGHT RIPPLE LIGHT No. 4, Color White-----	LEFT BANK	282.5
Above mouth of Eighteen Mile Creek.		
STRAIGHT RIPPLE, head-----		283.5
Channel near right bank. Least depth, near head, 2.1 feet, open river.		
386. STRAIGHT RIPPLE DAYMARK No. 1, Color White-----	RIGHT BANK	284.0
Waugh's Landing.		
385. STRAIGHT RIPPLE LIGHT No. 2, Color White-----	LEFT BANK	284.7
Campbells Branch.		
GLENWOOD LANDING-----	LEFT BANK	285.1
GLENWOOD STATION, Mason Co., W. Va. (185).		
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Ohio shore.		
SWAN CREEK-----	RIGHT BANK	286.0
WELLS LANDING, Mason Co., W. Va.-----	LEFT BANK	286.2
LITTLE GUYANDOTTE RIVER-----	LEFT BANK	286.8
384. LACEY LANE LIGHT, Color White-----	LEFT BANK	287.1
At Lacey Lane Landing.		
BLAKES LANDING, Gallia Co., Ohio-----	RIGHT BANK	287.2
HICKORY LANDING, Gallia Co., Ohio-----	RIGHT BANK	287.8
COTTONWOOD BAR, head-----	RIGHT BANK	288.4
Channel near left bank. Least depth, head, 2.9 feet.		
SUGAR CREEK-----	RIGHT BANK	288.4
JENKINS WAREHOUSE LANDING, Mason Co., W. Va.-----	LEFT BANK	288.5
BIG DOUBLE CREEK and LITTLE DOUBLE CREEK-----	RIGHT BANK	289.0
383. DOUBLE CREEK LIGHT, Color White-----	RIGHT BANK	289.0
Cottonwood Landing below the bar.		
GATEWOOD LANDING, at Mouth of BIG CREEK-----	RIGHT BANK	289.3
SIMMS RUN-----	RIGHT BANK	290.2
CROWN CITY, Gallia Co., Ohio (290)-----	RIGHT BANK	290.4
Ferry to West Virginia shore at Crown City ferry station.		
CROWN CITY FERRY STATION, Cabell Co., W. Va.-----	LEFT BANK	290.4
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Crown City, Ohio.		
NICHOLS LANDING, Gallia Co., Ohio-----	RIGHT BANK	291.1
SHOAL RUN-----	RIGHT BANK	291.2
382. GREEN BOTTOM LIGHT No. 2, Color White-----	LEFT BANK	291.3
Head of Green Bottom Shoals. Crossing to right bank. Least depth, head, 3.9 feet, open river.		
381. GREEN BOTTOM LIGHT No. 1, Color White-----	RIGHT BANK	291.5
BAY BOTTOM, Ohio-----	RIGHT BANK	291.9
KLUGS LANDING, Cabell Co., W. Va.-----	LEFT BANK	292.5
THORNILYS LANDING, Cabell Co., W. Va.-----	LEFT BANK	292.9
FEDERAL CREEK-----	RIGHT BANK	293.7
MILLERSPORT, Lawrence Co., Ohio (300)-----	RIGHT BANK	294.1
Ferry to Millersport ferry station, W. Va.		
MILLERSPORT FERRY LANDING and STATION, Cabell Co., W. Va.-----	LEFT BANK	294.2
Railroad: Ohio River Div. (B. & O. R. R.). Ferry to Millersport, Ohio.		
380. RURAL HOME LIGHT, Color White-----	RIGHT BANK	295.2
GOOSE RUN-----	LEFT BANK	295.2
LESAGE LANDING and STATION, Cabell Co., W. Va.-----	LEFT BANK	295.9
Railroad: Ohio River Div. (B. & O. R. R.).		
ATHALIA, Lawrence Co., Ohio (226)-----	RIGHT BANK	295.8
TWO MILE CREEK-----	RIGHT BANK	295.8
HASKELLVILLE, adjoining below-----	RIGHT BANK	295.9

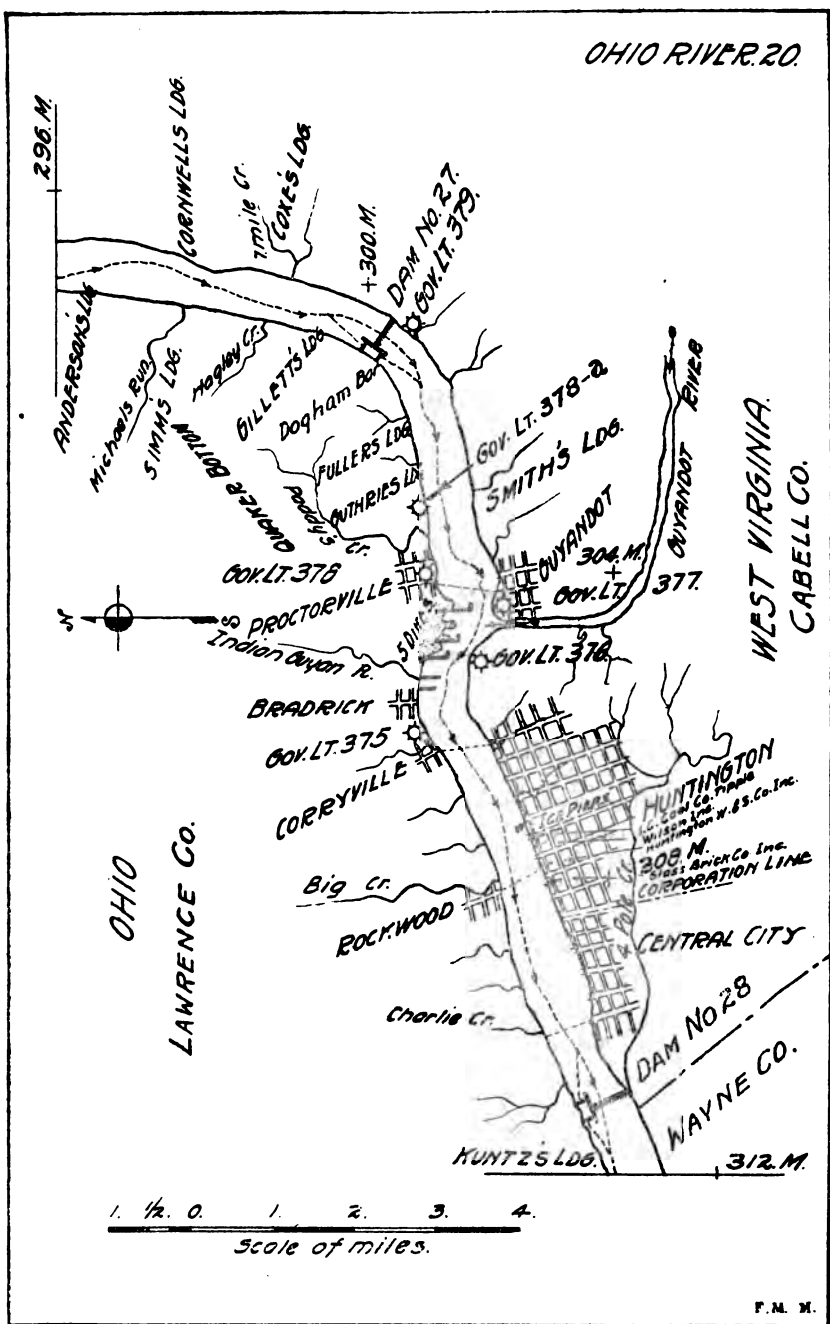


Chart No. 20.

Miles below
Pittsburgh.

ANDERSON'S LANDING, Lawrence Co., Ohio	RIGHT BANK	296.7
CORNWELLS LANDING, Cabell Co., W. Va. (Formerly Jefferson Landing.)	LEFT BANK	297.7
MICHAELS RUN and SIMMS LANDING, Lawrence Co., Ohio	RIGHT BANK	297.9
COXES LANDING, Cabell Co., W. Va. Railroad: Ohio River Div. (B. & O. R. R.).	LEFT BANK	298.5
HAGLEY CREEK	RIGHT BANK	298.9
SEVEN MILE CREEK	LEFT BANK	299.0
GILLETTS LANDING, Lawrence Co., Ohio	RIGHT BANK	299.5
OHIO RIVER DAM No. 27		300.3
Under construction. 1920. When completed, lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 652 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
FULLERS LANDING, Lawrence Co., Ohio	RIGHT BANK	300.5
QUAKER BOTTOM	RIGHT BANK	302.0
GUTHRIES LANDING, Lawrence Co., Ohio	RIGHT BANK	302.3
378a. PADDY CREEK LIGHT. Color White	RIGHT BANK	302.8
SMITHS LANDING, Cabell Co., W. Va.	LEFT BANK	302.9
PADDYS CREEK (Quaker Bottom)	RIGHT BANK	303.2
378. PROCTORVILLE LIGHT. Color White and Red	RIGHT BANK	303.8
GUYANDOT SHOALS, head		303.8
Channel near left bank. Avoid 5 stone dikes extending from right (Ohio) bank by keeping near left bank until past town of Bradrick, Ohio, which is opposite the lower dike. Least depth usually one-half mile below Guyandot River, 2.3 feet, open river.		
PROCTORVILLE, Lawrence Co., Ohio (550)	RIGHT BANK	304.1
Settled 1812 as Grantstown. Principal industries, general merchandising. Ferry to Guyandot, W. Va.		
377. GUYANDOT BAR LIGHT No. 4. Color White	LEFT BANK	304.3
Upper dike nearly opposite.		
GUYANDOT, Cabell Co., W. Va. (2,000)	LEFT BANK	304.5
County seat Cabell Co. 1809. Principal industry: Saw and planing mill. Railroad: Ohio River Div. (B. & O. R. R.) and Chesapeake & Ohio R. R. Electric line to Huntington and Ashland, connecting with line for Ironton and Hanging Rock. Ferry to Proctorville, Ohio.		
GUYANDOT RIVER	LEFT BANK	304.6
This stream formerly improved by 6 locks and dams to Laurel Hill, 40 miles from mouth; dams now mostly obliterated. Open-river navigation by "push boats" to Logan Court House, 82.5 miles from Ohio. (For Guyandot River, see Tributary streams.)		
376. GUYANDOT BAR LIGHT No. 2. Color White	LEFT BANK	304.9
BRADBRICK, Lawrence Co., Ohio (54)	RIGHT BANK	305.5
Indian Guyan River just above Bradrick.		
375. GUYANDOT BAR LIGHT No. 1. Color White	RIGHT BANK	305.9
CORRYVILLE, Lawrence Co., Ohio	RIGHT BANK	306.3
Ferry to Upper Huntington, W. Va.		
ICE PIERS, GUYAN FUEL CO.	LEFT BANK	307.1
GUYAN FUEL CO. (Island Creek Coal Co.) Incline	LEFT BANK	307.3
WILSON SAND INCLINE	LEFT BANK	307.4
BIG CREEK	RIGHT BANK	307.4
ROCKWOOD, Lawrence Co., Ohio	RIGHT BANK	307.5
(Formerly Prampton.) Ferry to Huntington, W. Va.		
HUNTINGTON, Cabell Co., W. Va. (38,000)	LEFT BANK	307.6
County seat. Settled and incorporated 1871. Principal industries: Car works; also manufacturing glass, earthenware, and wood. Railroads: Ohio River Div. (B. & O. R. R.); Chesapeake & Ohio R. R. (main line and Guyandot Valley Div.). Electric line to Guyandot, W. Va., and Ashland, Ky. Ferries to Corryville and Rockwood (the latter shift).		
HUNTINGTON WAREHOUSE & STORAGE CO. INCLINE	LEFT BANK	307.6
GLASS BRICK CO. INCLINE	LEFT BANK	307.9
CENTRAL CITY, Cabell Co., W. Va. (1,200)	LEFT BANK	309.0
Annexed to Huntington, 1909. Population not included with Huntington. Industries: Sawmill, veneer works, oil mill, and manufacturing. Ferry from landing (309.3 miles) to Ohio shore.		
CHARLIE CREEK	RIGHT BANK	310.0
OHIO RIVER DAM No. 28		310.9
Lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
FOUR POLE CREEK	LEFT BANK	311.1
KUNTZ LANDING, Lawrence Co., Ohio	RIGHT BANK	311.7

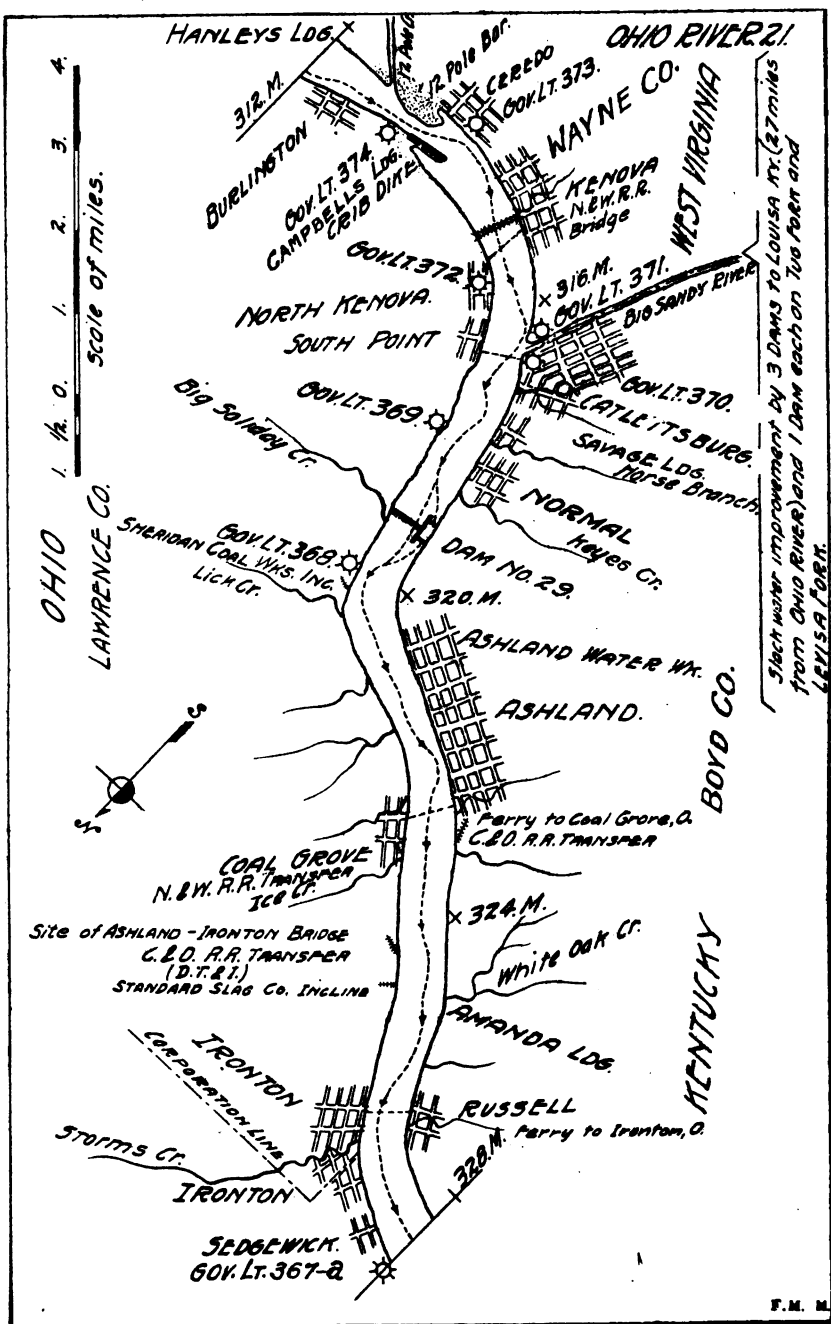


Chart No. 21.

Miles below
Pittsburgh.

HANLEYS LANDING, Wayne Co., W. Va.	LEFT BANK	312.1
Continental Powder Works, Dupont, W. Va.		
BURLINGTON, Lawrence Co., Ohio (240)	RIGHT BANK	312.5
Industry: General merchandising. Ferry (gasoline launch) to Dupont, W. Va.		
TWELVE POLE CREEK	LEFT BANK	312.7
374. TWELVE POLE LIGHT No. 1. Color White	RIGHT BANK	313.3
Campbells Landing, Lawrence Co., Ohio.		
TWELVE POLE DIKE, head TWELVE POLE BAR	RIGHT BANK	313.5
Channel crosses from right to left bank. Least depth, near head of dike, 1.2 feet, open river.		
CEBEDO, Wayne Co., W. Va. (2,000)	LEFT BANK	313.8
Industries: Saw and planing mills, etc. Railroads: Ohio River Div. (B. & O. R. R.); C. & O. R. R. Electric line: Guyandot-Ashland.		
378. TWELVE POLE LIGHT No. 2. Color White	LEFT BANK	313.9
KENOVA, Wayne Co., W. Va. (3,800)	LEFT BANK	314.0
Industries: Steel mill, also lumber and lime. Railroads: Ohio River Div. (B. & O. R. R. terminals); Chesapeake & Ohio R. R.; Norfolk & Western R. R. Electric line: Guyandot-Ashland. Ferry to Ohio shore.		
NORFOLK & WESTERN RY. Bridge		315.1
Channel span, 500 feet; height, 160.7 feet.		
NORTH KENOVA, Lawrence Co., Ohio	RIGHT BANK	315.7
372. DAVIDSON LANDING LIGHT. Color White	RIGHT BANK	315.8
371. VIRGINIA POINT LIGHT. Color White	LEFT BANK	316.4
Virginia Point is on the upper side of the mouth of Big Sandy River.		
SOUTH POINT, Lawrence Co., Ohio (818)	RIGHT BANK	316.4
BIG SANDY RIVER	LEFT BANK	316.6
This stream is formed by the confluence of Levisa and Tug Forks, and flows northward for 27 miles through a narrow valley to the Ohio. (For Big Sandy River, see Tributary streams.)		
CATLETTSBURG, Boyd Co., Ky., county seat (5,000)	LEFT BANK	316.7
Immediately below mouth of Big Sandy River. Principal industries: Flour and saw mills; wholesale merchandising. Railroads: C. & O. R. R. (main line) and the Big Sandy Div. to Elkhorn City. Electric line: Guyandot-Ashland. Ferry to Ohio shore (South Point). Yellow Poplar Lumber Co.		
369. SAVAGE LANDING LIGHT. Color White	RIGHT BANK	318.1
SAVAGE LANDING, Boyd Co., Ky.	LEFT BANK	318.1
HORSE BRANCH	LEFT BANK	318.2
NORMAL, Boyd Co., Ky. (100)	LEFT BANK	318.2
Industries: Saw and planing mills. Railroad: C. & O. R. R. Electric line: Guyandot-Ashland.		
KEYES CREEK	LEFT BANK	318.6
DAM No. 20, OHIO RIVER		319.4
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note directions and caution as in case of Dam No. 1, p. 25. (Lyfesside Park and Normal post office. Railroad: C. & O. Electric line: Guyandot-Ashland.)		
BIG SOLIDAY CREEK	RIGHT BANK	319.5
368. SHERIDAN COAL WORKS LIGHT. Color White	RIGHT BANK	320.0
SHERIDAN COAL WORKS INCLINE	RIGHT BANK	320.0
Sheridan Station, Lawrence Co., Ohio. Railroad: Norfolk & Western R. R.		
ASHLAND WATERWORKS	LEFT BANK	320.4
LICK CREEK	RIGHT BANK	320.5
ASHLAND, Boyd Co., Ky. (landing) (8,000)	LEFT BANK	322.0
Principal industries: Blast furnaces and rolling mill for manufacture of iron and steel; foundry and machine shops; manufactures of coke, fire brick; saw and planing mills, etc. Railroads: C. & O. (main line); also Big Sandy Div. and Ashland-Louisville Div. C. & O.; A. C. & I. R. R. Electric line to Guyandot, W. Va. Ferry to upper Coal Grove, Ohio, connecting with electric line on right bank to Ironton and Hanging Rock, Ohio. C. & O. R. R. and N. & W. R. R. transfers to Coal Grove, Ohio.		
COAL GROVE, Lawrence Co., Ohio (1,280), N. & W. incline	RIGHT BANK	323.0
Principal industries: Manufacturing fire brick and tile; quarries for cement rock; Yellow Poplar Lumber Co. Railroads: N. & W. R. R. Electric line to Ironton and Hanging Rock. River transfer N. & W. R. R. Ferry to Ashland, Ky.		
C. & O. R. R. TRANSFER INCLINE	LEFT BANK	323.1
ICE CREEK	RIGHT BANK	323.8
ASHLAND-IRONTON R. R. BRIDGE (unfinished)		324.1
C. & O. R. R. TRANSFER INCLINE (D. T. & I. R. R.)	RIGHT BANK	324.5
STANDARD SLAG CO. INCLINE	RIGHT BANK	324.8
WHITE OAK CREEK	LEFT BANK	325.3
Amanda Station, Boyd Co., Ky. Railroad: C. & O. R. R.		
RUSSELL, Boyd Co., Ky. (3,000)	LEFT BANK	326.7
Principal industries: Repair shops C. & O. R. R. Railroad: C. & O. R. R. Ferry to Ironton, Ohio.		
IRONTON, Lawrence Co., Ohio (landing) (14,000)	RIGHT BANK	326.7
County seat. Industries: Blast furnaces (6) and rolling mills for manufacture of iron and steel, wire nails, etc.; Portland cement; lumber mills (6); manufacture of shoes and machinery. Railroads: N. & W.; also Iron R. R. furnishing connection for B. & O. S. W. R. R. Electric line: Upper Coal Grove to Hanging Rock. Ferry to Russell, Ky.		
STORMS RUN	RIGHT BANK	327.0
SEDGEWICK, Lawrence Co., Ohio	RIGHT BANK	327.8
367-a. IRONTON BEND LIGHT. Color White	RIGHT BANK	328.0

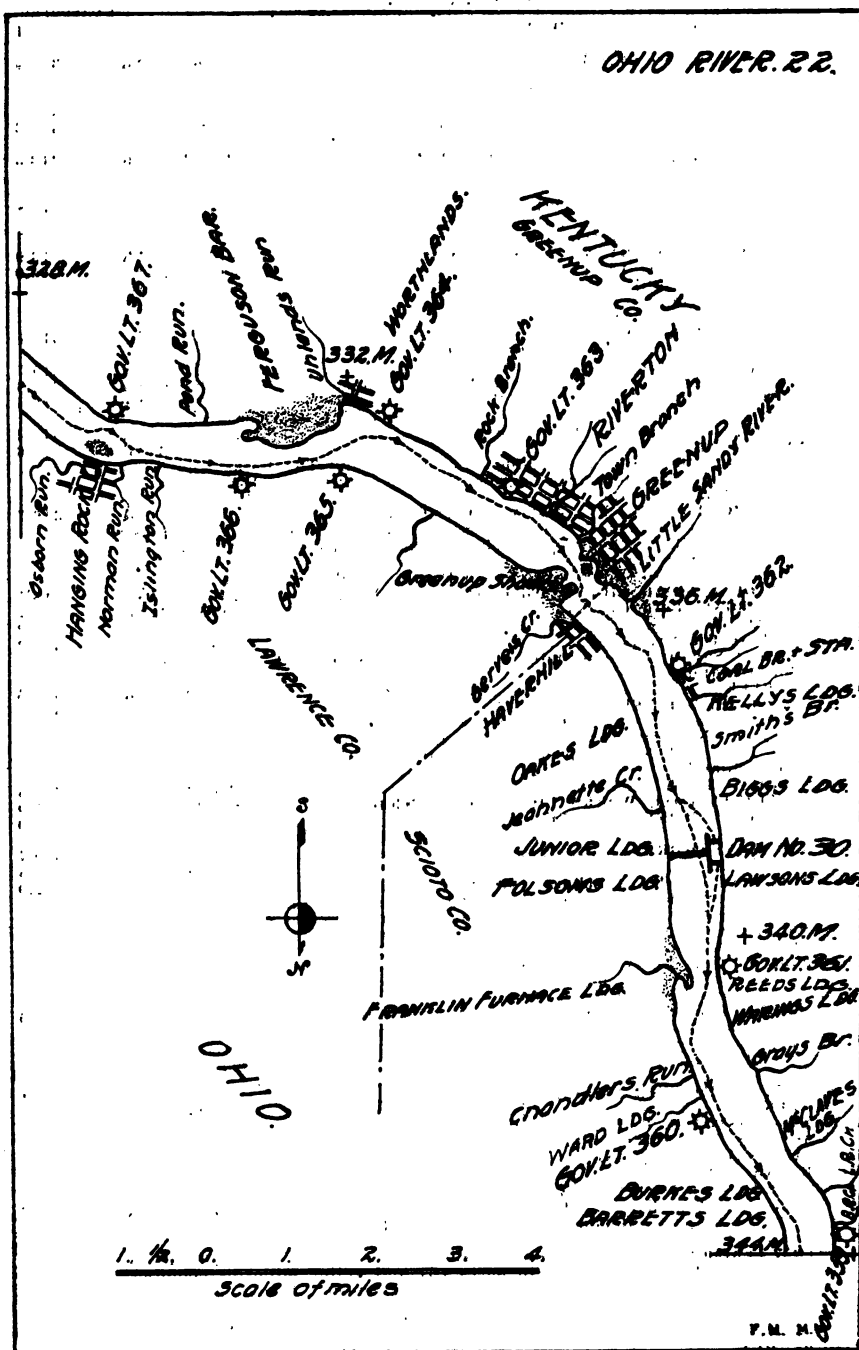


Chart No. 22.

Pittsburgh.
Miles below

HANGING ROCK, Lawrence Co., Ohio (700)	RIGHT BANK	329.4
Principal industry: The Hamilton Furnace (pig iron). Railroad: N. & W. R. R. Electric line to upper Coal Grove.		
OSBORN RUN	RIGHT BANK	329.4
367. HANGING ROCK POINT LIGHT. Color White	LEFT BANK	329.4
NORMAN RUN	RIGHT BANK	329.4
ISLINGTON RUN	RIGHT BANK	330.0
FOND RUN	LEFT BANK	330.4
368. FERGUSON BAR LIGHT. Color White	RIGHT BANK	331.2
WORTHLANDS, Greenup Co., Ky.	LEFT BANK	331.0
URLANDS RUN	LEFT BANK	332.1
365. GREENUP BAR LIGHT No. 1. Color White	RIGHT BANK	332.2
Channel crosses to left bank. Good depth of water.		
364. GREENUP BAR LIGHT No. 2. Color White	LEFT BANK	332.2
ROCK BRANCH	LEFT BANK	334.0
363. RIVERTON LIGHT. Color White	LEFT BANK	334.0
RIVERTON, Greenup Co., Ky. (120)	LEFT BANK	334.0
Railroads: B. & O.; Eastern Ky.		
TOWN BRANCH	LEFT BANK	335.1
Separates Riverton and Greenup, Ky. Greenup Shoals begin here; least depth opposite Greenup Landing, not more than 1 foot. Open river. The deeper channel farther down is quite narrow.		
GREENUP, Greenup Co., Ky. (680) (county seat)	LEFT BANK	335.4
The town incorporated 1818, but settlements made much before that time. Railroad: C. & O. R. R. Ferry to Haverhill, Ohio.		
GERVEIS CREEK	RIGHT BANK	335.6
HAYERHILL, Scioto Co., Ohio (76)	RIGHT BANK	335.6
Ferry to Greenup, Ky.		
LITTLE SANDY RIVER	LEFT BANK	335.6
362. COAL BRANCH LIGHT. Color White	LEFT BANK	336.7
Just above Coal Branch.		
COAL BRANCH STATION, Greenup Co., Ky.	LEFT BANK	336.7
Railroad: C. & O.		
DAKES LANDING, Scioto Co., Ohio	RIGHT BANK	337.4
KELLY'S LANDING, Greenup Co., Ky.	LEFT BANK	337.4
SMITHS BRANCH	LEFT BANK	338.0
JEANNETTE CREEK	RIGHT BANK	338.4
BIGGS LANDING, Greenup Co., Ky.	LEFT BANK	338.5
JUNIOR LANDING	RIGHT BANK	338.9
OHIO RIVER DAM No. 80		339.9
Under construction, 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 7, p. 25. Junior Landing, Scioto Co., Ohio, at site of Dam No. 80.		
LAWSON'S LANDING, Greenup Co., Ky.	LEFT BANK	339.9
FOLSON'S LANDING, Scioto Co., Ohio	RIGHT BANK	339.9
361. REEDS LANDING LIGHT. Color White	LEFT BANK	340.3
FRANKLIN FURNACE LANDING, Scioto Co., Ohio	RIGHT BANK	340.5
WARINGS LANDING, Greenup Co., Ky.	LEFT BANK	341.0
CHANDLERS RUN	RIGHT BANK	341.5
GRAYS BRANCH	LEFT BANK	341.6
360. WARD LANDING LIGHT. Color White	RIGHT BANK	342.1
This landing in Scioto Co., Ohio, sometimes called Patton's Landing.		
McCLAVES LANDING, Greenup Co., Ky.	LEFT BANK	342.6
BURKES LANDING, Scioto Co., Ohio	RIGHT BANK	342.8
Burkes Point, Scioto Co., Ohio.		
LITTLE ROCKY BRANCH	LEFT BANK	343.2
BARBETTS LANDING, Scioto Co., Ohio	RIGHT BANK	343.4
359. ROCKY RUN LIGHT. Color White	LEFT BANK	343.6
* Big Rocky Landing, Greenup Co., Ky., just below mouth of Big Rocky Branch.		

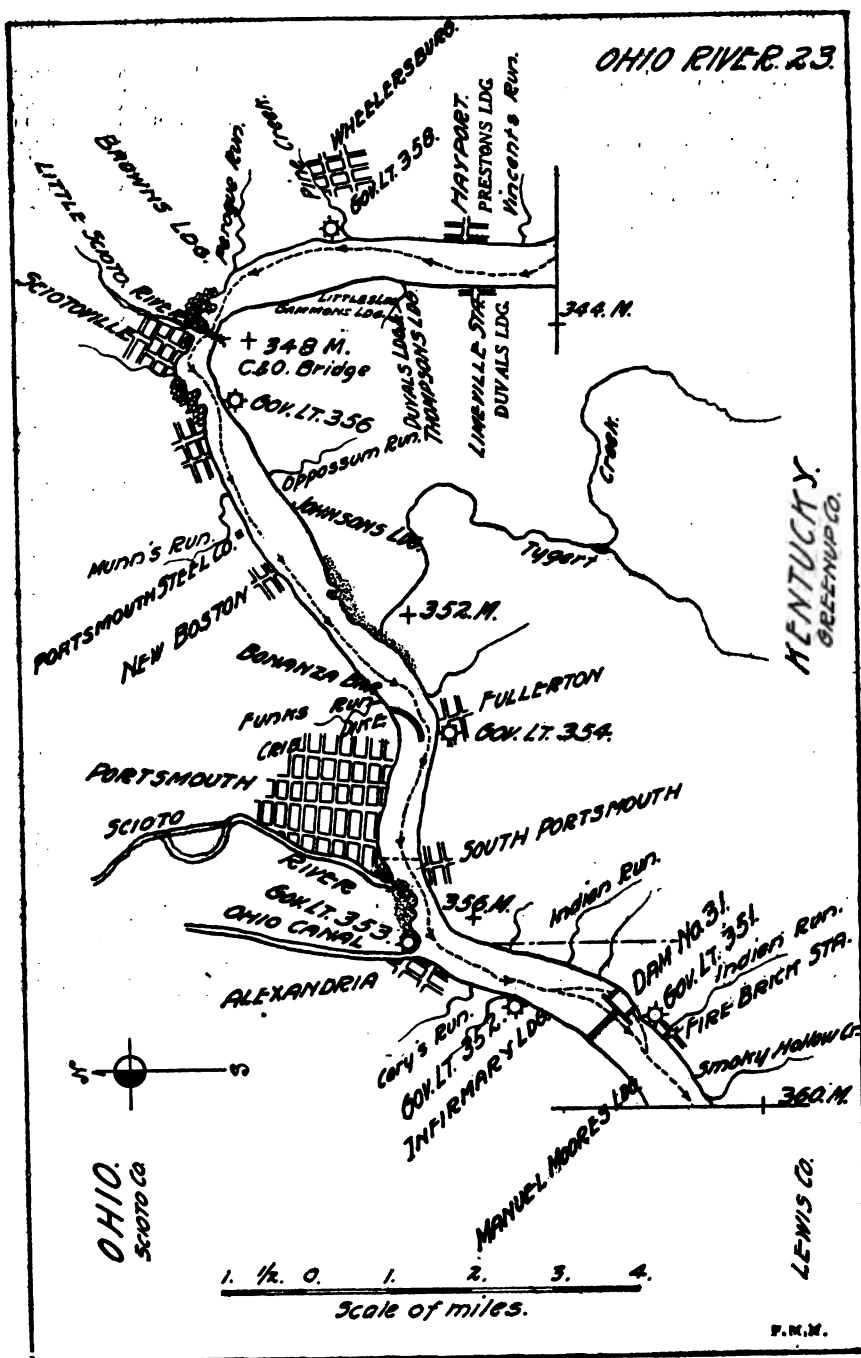


Chart No. 23.

Miles below
Pittsburgh.

VINCENNES RUN	RIGHT BANK	344.4
Prattlers Landing, Scioto Co., Ohio.		
PRESTONS LANDING, Scioto Co., Ohio.	RIGHT BANK	344.9
DEVALS LANDING, Greenup Co., Ky.	LEFT BANK	345.0
LINEVILLE STATION, Greenup Co., Ky.	LEFT BANK	345.0
Railroad: C. & O. R. R.		
HAYPORT, Scioto Co., Ohio.	RIGHT BANK	345.0
THOMPSONS LANDING, Greenup Co., Ky.	LEFT BANK	345.9
358. PINE CREEK LIGHT. Color White.	RIGHT BANK	346.5
Below mouth of Pine Creek. Highway to Wheelersburg, Scioto Co., Ohio, three-fourths mile from Ohio River.		
LITTLES LANDING, Greenup Co., Ky.	LEFT BANK	347.0
GAMMONS LANDING, Greenup Co., Ky.	LEFT BANK	347.5
PEROQUE RUN	RIGHT BANK	347.5
BROWNS LANDING, Scioto Co., Ohio.	RIGHT BANK	347.5
Railroad: N. & W. R. R.		
HEAD OF LITTLE SCIOTO BAR	RIGHT BANK	348.1
Channel past shoals near left bank. Least depth, foot of shoals, 4 feet. open river. Mackays Landing, Greenup Co., Ky., just below on left bank.		
SCIOTOVILLE, C. & O. R. R. BRIDGE		348.3
Channel span, 750 feet; height, 106.5 feet.		
LITTLE SCIOTO RIVER	RIGHT BANK	348.4
SCIOTOVILLE, Scioto Co., Ohio (1,800)	RIGHT BANK	348.7
Principal industry: Manufacture of firebrick. Railroads: N. & W. R. R. and B. & O. S. W. R. R. Electric line to Portsmouth, Ohio.		
356. LITTLE SCIOTO BAR LIGHT. Color White.	LEFT BANK	349.1
OPOSSUM RUN	LEFT BANK	350.1
MUNNS RUN	RIGHT BANK	350.2
JOHNSONS LANDING, Greenup Co., Ky.	LEFT BANK	350.3
PORTSMOUTH STEEL CO.'S PLANT	RIGHT BANK	350.7
NEW BOSTON LANDING and NEW BOSTON, Scioto Co., Ohio (1,858)	RIGHT BANK	351.2
Yellow Poplar Co.'s plant. Railroads: N. & W. R. R. and B. & O. S. W. R. R. Electric line: Sciotoville-Portsmouth.		
TYBERT CREEK	LEFT BANK	352.1
BONANZA BAR, head.		353.0
This bar in middle of river. Channel variable, least depth (usually opposite head of dike) 2 feet or less open river.		
FUNKS RUN	RIGHT BANK	353.4
BONANZA BAR DIKE (crib), head	RIGHT BANK	353.4
Below mouth of Funks Run.		
FULLETON, Greenup Co., Ky. (175)	LEFT BANK	353.6
Railroad: C. & O. R. R. Ferry to Portsmouth, Ohio.		
354. BONANZA BAR LIGHT. Color White.	LEFT BANK	353.7
PORTSMOUTH, Scioto Co., Ohio (23,481)	RIGHT BANK	355.4
County seat. Principal industries: Manufacture of steel and iron; shoes. Railroads: N. & W. R. R. and B. & O. S. W. R. R. Electric line: Sciotoville, Ohio. Ferry to South Portsmouth, Ky.		
SOUTH PORTSMOUTH, Greenup Co., Ky. (520)	LEFT BANK	355.4
Formerly Springville. Railroad: C. & O. R. R. Ferry to Portsmouth, Ohio.		
SCIOTO RIVER (present mouth)	RIGHT BANK	355.7
The mouth of the Scioto is obstructed by a bar which renders navigation at low stages impossible.		
358. SCIOTO BAR LIGHT. Color White.	RIGHT BANK	356.1
OHIO CANAL, mouth.	RIGHT BANK	356.5
No longer navigable. The canal can no longer be used as a through line.		
OLD MOUTH OF SCIOTO RIVER	RIGHT BANK	356.5
The Ohio Canal, above described, used the old mouth of the Scioto for its outlet to the Ohio River, keeping close to its right bank.		
ALEXANDRIA, Scioto Co., Ohio.	RIGHT BANK	356.6
Now practically obliterated. Just below old mouth of Scioto River.		
CARYS RUN	RIGHT BANK	357.2
INDIAN RUN (upper)	LEFT BANK	357.5
INFIRMARY LANDING, Scioto Co., Ohio.	RIGHT BANK	357.5
OHIO RIVER DAM No. 31		358.4
Lock on left bank: length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note the directions and caution as in case of Dam No. 1, (p. 25).		
FIREBRICK STATION, Lewis Co., Ky. (200)	LEFT BANK	359.1
Railroad: C. & O. R. R.		
INDIAN RUN	LEFT BANK	359.2
351. INDIAN RUN LIGHT. Color White.	LEFT BANK	359.5
MANUEL MOORES LANDING, Scioto Co., Ohio.	RIGHT BANK	359.5
SMOKY HOLLOW CREEK	LEFT BANK	359.8

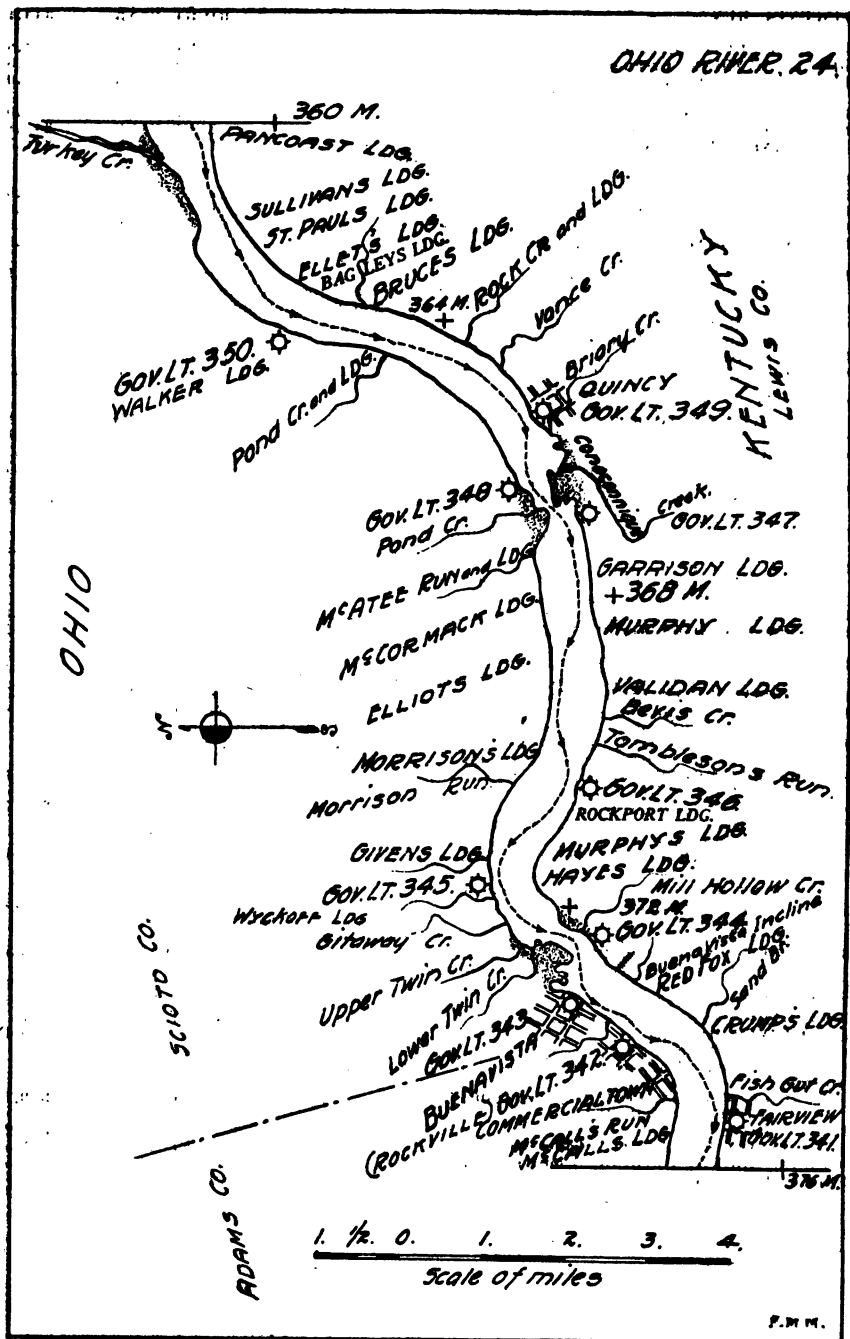


Chart No. 24.

Miles below
Pittsburgh.

PANCAST LANDING, Lewis Co., Ky.	LEFT BANK	360.1
TURKEY CREEK	RIGHT BANK	360.5
SULLIVANS LANDING, Lewis Co., Ky.	LEFT BANK	361.3
ST. PAULS LANDING, Lewis Co., Ky.	LEFT BANK	361.7
Highway to St. Pauls village and station. Railroad at station, C. & O. R. R.		
ELLIOTS LANDING, Lewis Co., Ky.	LEFT BANK	362.3
BAGLEYS LANDING, Lewis Co., Ky.	LEFT BANK	362.4
350. WALKER LANDING LIGHT. Color White.	RIGHT BANK	362.5
Walker Landing, Scioto Co., Ohio.		
BRUCES LANDING, Lewis Co., Ky.	LEFT BANK	363.3
POND LANDING, Scioto Co., Ohio.	RIGHT BANK	363.6
At mouth of Pond Creek.		
ROCK CREEK LANDING, Lewis Co., Ky.	LEFT BANK	364.6
Below mouth of Rock Creek.		
VANCE CREEK	LEFT BANK	365.0
349. QUINCY LIGHT. Color White.	LEFT BANK	365.8
QUINCY, Lewis Co., Ky. (1885). Railroad: C. & O. R. R.	LEFT BANK	365.8
RIARY CREEK	LEFT BANK	366.1
CONOCONNIQUE CREEK	LEFT BANK	366.4
348. CONOCONNIQUE CREEK LIGHT No. 1. Color White.	RIGHT BANK	366.5
Head of Conoconniquire Bar, lying along left bank, channel very narrow and near Ohio shore; least depth, lower end bar, 2.8 feet, open river. Channel crosses toward left bank.		
347. CONOCONNIQUE LIGHT No. 2. Color White.	LEFT BANK	366.9
MCATEE LANDING, Scioto Co., Ohio.	RIGHT BANK	367.3
At mouth of McAtee Run.		
MCCORMACK LANDING, Scioto Co., Ohio.	RIGHT BANK	367.8
GARRISON LANDING, Lewis Co., Ky.	LEFT BANK	367.8
MURPHY LANDING, Lewis Co., Ky.	LEFT BANK	368.4
ELLIOTS LANDING, Scioto Co., Ohio.	RIGHT BANK	368.5
VALIDAN LANDING, Lewis Co., Ky.	LEFT BANK	369.1
BEVIS CREEK	LEFT BANK	369.5
TOMBLESONS RUN	LEFT BANK	369.8
MORRISONS LANDING, Scioto Co., Ohio.	RIGHT BANK	370.0
346. ROCKPORT LIGHT. Color White.	LEFT BANK	370.3
Rockport Landing, Lewis Co., Ky. Railroad: C. & O. R. R.		
MORRISON RUN	RIGHT BANK	370.8
MURPHY LANDING, Lewis Co., Ky.	LEFT BANK	371.5
GIVENS LANDING, Scioto Co., Ohio.	RIGHT BANK	371.4
345. WICKOFF LANDING LIGHT. Color White.	RIGHT BANK	371.6
Wyckoff Landing, Scioto Co., Ohio.		
HAYES LANDING, Lewis Co., Ky.	LEFT BANK	371.6
UTTAWAY CREEK	RIGHT BANK	372.0
UPPER and LOWER TWIN CREEKS	RIGHT BANK	372.4
At head of Twin Creek or Buena Vista Bar, channel sufficiently deep, but naturally very crooked and dangerous, owing to presence of large rocks at side. Channel crosses from right to left bank and returns to Ohio bank.		
MILL HOLLOW CREEK	LEFT BANK	372.5
344. TWIN CREEK LIGHT. Color White.	LEFT BANK	372.6
HOISING INCLINE TO BUENA VISTA STATION, Lewis Co., Ky.	LEFT BANK	372.8
Railroad: C. & O. R. R.		
343. BUENA VISTA LIGHT. Color White.	RIGHT BANK	373.0
BUENA VISTA, Scioto Co., Ohio (1884).	RIGHT BANK	373.0
Industry: Stone quarrying and cutting by Buena Vista Freestone Works.		
RED FOX LANDING, Lewis Co., Ky.	LEFT BANK	373.3
342. ROCKVILLE LIGHT. Color White.	RIGHT BANK	373.5
Rockville, Adams Co., Ohio.		
COMMERCIAL TOWN, Adams Co., Ohio.	RIGHT BANK	374.1
CRUMPS LANDING, Lewis Co., Ky.	LEFT BANK	374.5
Mouth of Sand Branch.		
MCCALLS LANDING, Adams Co., Ohio.	RIGHT BANK	374.5
Mouth of McCallis Run.		
FISH GUT CREEK	LEFT BANK	375.2
341. FAIRVIEW LIGHT. Fairview, Lewis Co., Ky. Color White.	LEFT BANK	375.4

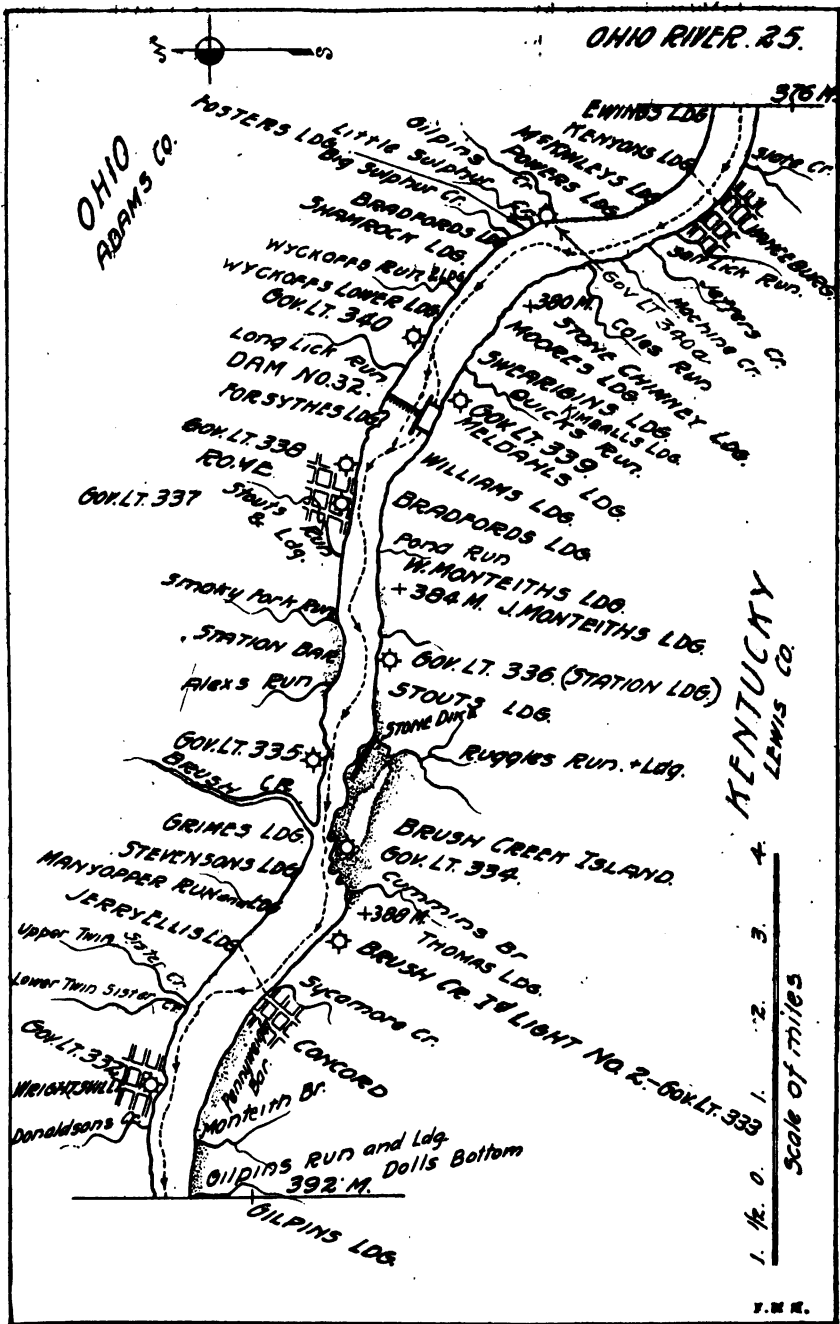


Chart No. 25.

Miles below
Pittsburgh.

EWINGS LANDING, Adams Co., Ohio	RIGHT BANK	376.2
SLATE CREEK	LEFT BANK	376.9
VANCEBURG, Lewis Co., Ky. (1,145)	LEFT BANK	377.1
Industries: Distillery, planing and saw mill, tannery, flour mill, general merchandising. Freestone quarries below the town. Railroad: C. & O. R. R. Ferry to Kenyons Landing, Ohio. County seat of Lewis County; organized 1806.		
KENYONS LANDING, Adams Co., Ohio	RIGHT BANK	377.1
Ferry to Vanceburg, Ky.		
SALT LICK RUN	LEFT BANK	377.4
McKINLEYS LANDING, Adams Co., Ohio	RIGHT BANK	377.4
JEFFERS CREEK	LEFT BANK	378.2
POWERS LANDING, Adams Co., Ohio	RIGHT BANK	378.4
GILPINS CREEK	RIGHT BANK	378.4
MACHINE CREEK	LEFT BANK	378.4
240-a. SULPHUR CREEK LIGHT. Color White	RIGHT BANK	378.9
COLES RUN	LEFT BANK	379.0
LITTLE SULPHUR CREEK	RIGHT BANK	379.2
FOSTERS LANDING, Adams Co., Ohio	RIGHT BANK	379.2
BIG SULPHUR CREEK	RIGHT BANK	379.5
BRADFORDS LANDING, Adams Co., Ohio	RIGHT BANK	379.7
STONE CHIMNEY LANDING, Lewis Co., Ky	LEFT BANK	379.9
SHAMROCK, Adams Co., Ohio	RIGHT BANK	380.0
MOORES LANDING, Lewis Co., Ky	LEFT BANK	380.2
WYCKOFFS LANDING, Adams Co., Ohio	RIGHT BANK	380.2
WYCKOFFS LOWER LANDING, Adams Co., Ohio	RIGHT BANK	380.4
SWARIGINS LANDING, Lewis Co., Ky	LEFT BANK	380.5
240. QUICK RUN LIGHT No. 3. Color White	RIGHT BANK	380.9
QUICKS RUN	LEFT BANK	381.0
KIMBALLS LANDING, Lewis Co., Ky	LEFT BANK	381.1
LONG LICK RUN	RIGHT BANK	381.2
The scene of many mysterious murders by a band of outlaws said to have had their headquarters in the haunted cave.		
332. QUICK RUN LIGHT No. 2. Color White	LEFT BANK	381.2
MELDAHLS LANDING, Lewis Co., Ky	LEFT BANK	381.2
DAM No. 82, OHIO RIVER		381.7
Under construction, 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care necessary in passing dam while under construction. After completion note directions and cautions as in case of Dam No. 1, p. 25.		
FORSTHES LANDING, Adams Co., Ohio	RIGHT BANK	382.1
WILLIAMS LANDING, Lewis Co., Ky	LEFT BANK	382.2
238. QUICK RUN DAYMARK No. 1. Color White	RIGHT BANK	382.7
237. BOME LIGHT. White with Red Front	RIGHT BANK	382.8
BOME, Adams Co., Ohio (334)	RIGHT BANK	382.8
BRADFORD LANDING, Lewis Co., Ky	LEFT BANK	382.9
POND RUN	LEFT BANK	382.9
W. MONTEITHS LANDING, Lewis Co., Ky	LEFT BANK	382.9
STOUTS RUN and LANDING, Adams Co., Ohio	RIGHT BANK	382.7
J. MONTEITHS LANDING, Lewis Co., Ky	LEFT BANK	384.0
SMOKY FORK RUN	RIGHT BANK	384.2
STATION BAR	RIGHT BANK	384.4
Channel near left bank. Good depth of water in channel.		
336. STOUTS LANDING LIGHT. Color White	LEFT BANK	384.6
ALEX'S RUN	RIGHT BANK	385.3
STOUTS LANDING, Lewis Co., Ky	LEFT BANK	385.3
Highway leading to Stouts Bottom and to Carrs post office and station C. & O. R. R. Channel makes a crossing to right bank.		
BUGGERS RUN and LANDING	LEFT BANK	385.9
STONE DIKE from left bank to head Brush Creek Island		385.9
Brush Creek Island, formerly called Wilson Island. Channel to right of island. Navigation sometimes difficult. Least depth, foot of island, 2 feet, open river.		
335. LOCKHART LANDING LIGHT. Color White	RIGHT BANK	386.2
BRUSH CREEK	RIGHT BANK	387.1
A considerable stream rising in Highland Co., Ohio.		
GRIMES LANDING, Adams Co., Ohio	RIGHT BANK	387.1
334. BRUSH CREEK ISLAND LIGHT No. 4, Island shore at foot. Color White.	LEFT BANK	387.2
CUMMINS BRANCH	LEFT BANK	387.7
STEVENSONS LANDING, Adams Co., Ohio	RIGHT BANK	387.7
THOMAS LANDING, Lewis Co., Ky	LEFT BANK	388.0
333. BRUSH CREEK ISLAND LIGHT No. 2. Color White	LEFT BANK	388.2
MANYOPPER RUN and LANDING, Adams Co., Ohio	RIGHT BANK	388.4
JERRY ELLIS LANDING, Adams Co., Ohio	RIGHT BANK	389.1
Ferry to Concord, Ky.		
SYCAMORE CREEK	LEFT BANK	389.2
CONCORD, Lewis Co., Ky. (218)	LEFT BANK	389.2
Industries: Flouring and saw mills, general merchandising. Railroad: C. & O. R. R. Ferry to Jerry Ellis Landing, Ohio.		
PENNYWEIGHT BAR	LEFT BANK	389.4
UPPER and LOWER TWIN SISTER CREEKS	RIGHT BANK	390.0
232. WRIGHTSVILLE LIGHT. Color White	RIGHT BANK	390.2
WRIGHTSVILLE, Adams Co., Ohio (57)	RIGHT BANK	390.7
Laid out by James Hobson, 1847.		
DONALDSONS CREEK	RIGHT BANK	391.2
MONTEITH BRANCH	LEFT BANK	391.2
GILPINS RUN and LANDING } Lewis Co., Ky	LEFT BANK	392.0
DOLLS BOTTOM, Ky		

OHIO RIVER 26.

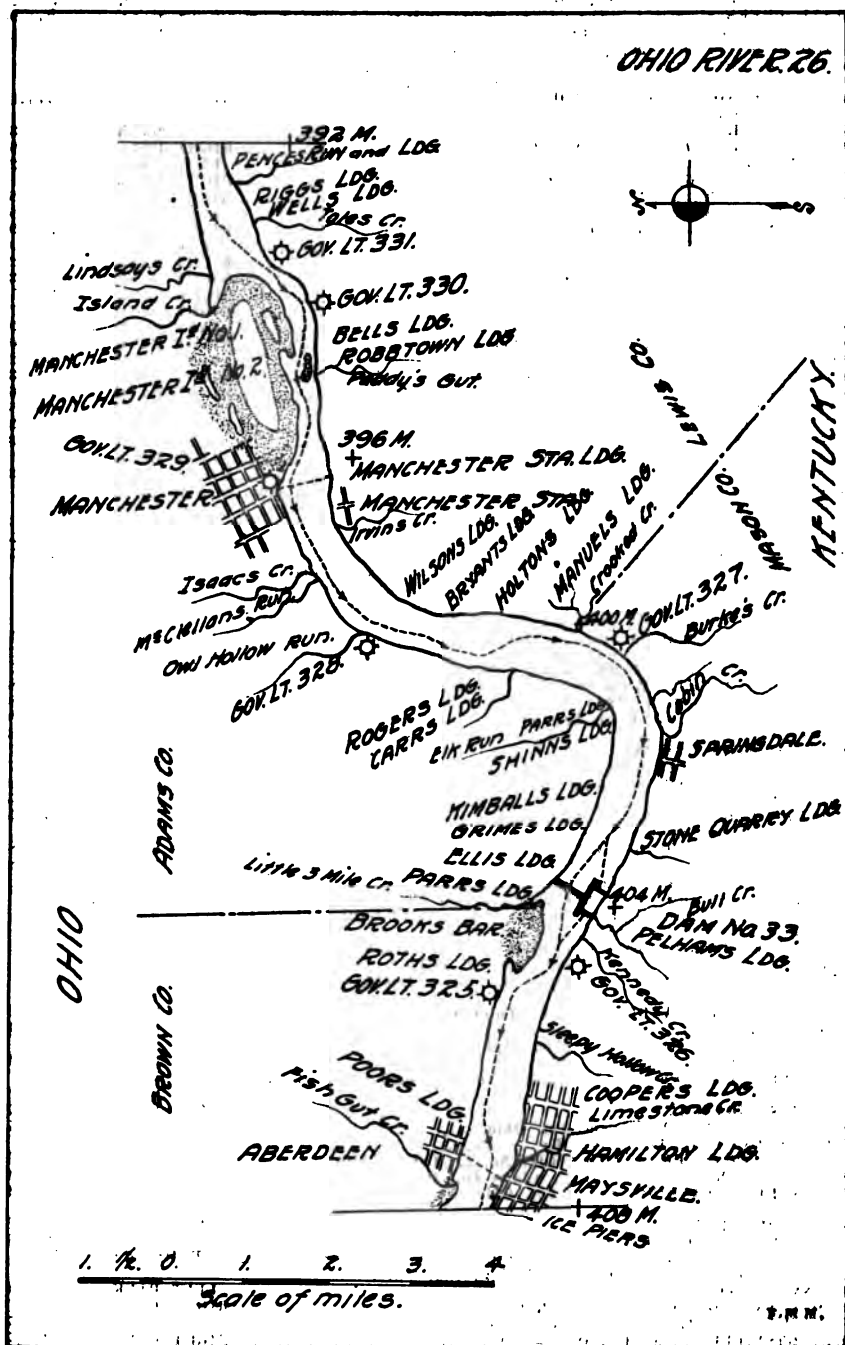


Chart No. 26.

Miles below
Pittsburgh.

PENCES RUN and LANDING, Lewis Co., Ky.	LEFT BANK	392.5
RIGGS LANDING, Lewis Co., Ky.	LEFT BANK	392.7
WELLS LANDING, Lewis Co., Ky.	LEFT BANK	392.8
TOLES CREEK	LEFT BANK	392.9
381. MANCHESTER ISLAND LIGHT No. 4. Color White.	LEFT BANK	393.5
Head of Upper Manchester Island. Channel to left of island, near Kentucky shore. Least depth a short distance above this point, 3.2 feet, open river. At one time there were three islands in the group, but of the smallest one, at the foot, only faint traces can now be found in the shape of a gravel bar. The largest of the three was called Massies Island.		
LINDSAYS CREEK	RIGHT BANK	393.5
At head of back channel, not navigable. Island Creek flows into this back channel half mile below.		
380. MANCHESTER ISLAND LIGHT No. 2. Color White.	LEFT BANK	394.2
BELLS LANDING, Lewis Co., Ky.	LEFT BANK	394.7
ROBERTSON LANDING, Lewis Co., Ky.	LEFT BANK	395.0
Railroad: C. & O. R. R. Paddy Gap below landing.		
MANCHESTER STATION LANDING, Lewis Co., Ky.	LEFT BANK	396.1
Station one-half mile below landing. Railroad: C. & O. R. R. Ferry to Manchester, Ohio.		
MANCHESTER, Adams Co., Ohio	RIGHT BANK	396.1
(1,968) Industries: Sawmill, furniture factory, and general merchandising. Ferry to Manchester Station Landing, Ky.		
IRVINS CREEK, above Wilsons Bottom	LEFT BANK	396.8
ISAACS CREEK	RIGHT BANK	397.1
McCLELLANS RUN	RIGHT BANK	397.2
OWL HOLLOW RUN	RIGHT BANK	397.3
WILSONS LANDING, Lewis Co., Ky.	LEFT BANK	397.8
328. MANCHESTER BEND LIGHT. Color White.	RIGHT BANK	397.9
BRYANTS LANDING, Lewis Co., Ky.	LEFT BANK	398.5
HORTONS LANDING, Lewis Co., Ky.	LEFT BANK	399.1
BOGERS LANDING, Adams Co., Ohio	RIGHT BANK	399.2
CARBS LANDING, Adams Co., Ohio	RIGHT BANK	399.5
MANUELS LANDING, Lewis Co., Ky.	LEFT BANK	399.7
CROOKED CREEK, Mason Co., Ky.	LEFT BANK	400.1
327. KIRKER LANDING LIGHT. Color White.	LEFT BANK	400.5
Kirker Landing, Mason Co., Ky. At mouth of Burkes Creek.		
PARRS LANDING, Adams Co., Ohio	RIGHT BANK	401.1
At mouth of Elk Run.		
ELK RUN	RIGHT BANK	401.1
SHINNS LANDING, Adams Co., Ohio	RIGHT BANK	401.4
CABIN CREEK, Mason Co., Ky.	LEFT BANK	401.7
SPRINGDALE, Mason Co., Ky. (90)	LEFT BANK	401.9
Railroad: C. & O. R. R.		
KIMBALLS LANDING, Adams Co., Ohio	RIGHT BANK	402.5
STONE QUARRY LANDING, Mason Co., Ky.	LEFT BANK	402.1
GRIBBS LANDING, Adams Co., Ohio	RIGHT BANK	403.1
ELVIS LANDING, Adams Co., Ohio	RIGHT BANK	403.7
OHIO RIVER DAM No. 88		404.0
Under construction 1920. When completed, lock on left bank: length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution as in case of Dam No. 1, p. 25.		
RUTT CREEK	LEFT BANK	404.1
PARRS LANDING, Adams Co., Ohio	RIGHT BANK	404.2
Head of Brooks Bar lying on right bank, channel near left bank. Least depth near head, 3.1 feet, open river.		
THREE MILE CREEK	RIGHT BANK	404.2
PELHAMS LANDING, Mason Co., Ky.	LEFT BANK	404.2
KENNEDY CREEK	LEFT BANK	404.4
326. BROOK BAR LIGHT No. 2. Color White.	LEFT BANK	404.7
BOTHES LANDING, Brown Co., Ohio	RIGHT BANK	405.2
325. BROOK BAR LIGHT No. 1. Color White.	RIGHT BANK	405.3
SLEEPY HOLLOW CREEK	LEFT BANK	405.4
COOPERS LANDING, Union Street, Maysville	LEFT BANK	405.4
POHNS LANDING, Brown Co., Ohio	RIGHT BANK	405.9
HAMILTON LANDING, Commerce Street, Maysville	LEFT BANK	406.3
LIMESTONE CREEK	LEFT BANK	407.2
ABERDEEN, Brown Co., Ohio (568)	RIGHT BANK	407.2
Principal Industry: Sawmill. Ferry to Maysville, Ky. A branch of the "National Road" starts from Aberdeen.		
ICE PIERS (U. S.)	LEFT BANK	407.2
MAYSVILLE, Mason Co., Ky. (6,141), public landing.	LEFT BANK	407.3
The city has extensive manufactures, including tobacco, flours, saddlery, brick, furniture, machine works, flouring and saw mills. It is an important market for tobacco, corn, wheat, and garden products. There are four banks in the city. Railroads: C. & O. R. R. (main line) and L. & N. R. R. (Maysville to Lexington). Electric line (local only). Ferry to Aberdeen, Ohio. Concrete ice piers built by the United States furnish an ice harbor for boats.		
FISH GUT CREEK	RIGHT BANK	407.9

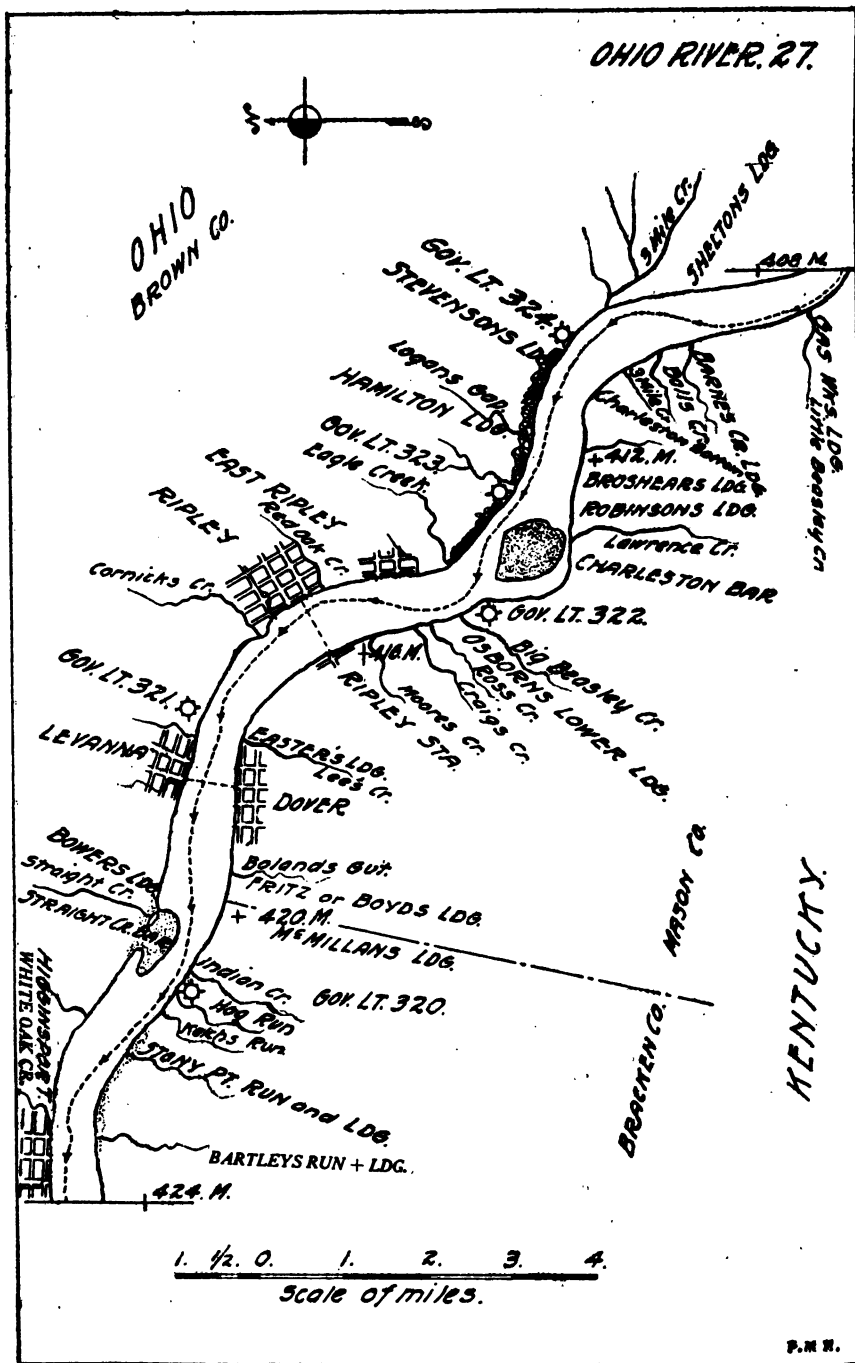


Chart No. 27.

Miles below
Pittsburgh.

GAS WORKS LANDING, Maysville, Ky.	-----	LEFT BANK	408.4
At mouth of Little Beasley Creek.			
BARNES CREEK LANDING, Mason Co., Ky.	-----	LEFT BANK	409.9
SHELTONS LANDING, Brown Co., Ohio.	-----	RIGHT BANK	410.0
BALLS CREEK	-----	LEFT BANK	410.3
THREE MILE CREEK	-----	RIGHT BANK	410.9
CHARLESTON BOTTOMS, Ky.	-----	LEFT BANK	410.9
STEVENSON LANDING, Brown Co., Ohio.	-----	RIGHT BANK	411.2
HAMILTON LANDING, Brown Co., Ohio.	-----	RIGHT BANK	411.3
324. LOGANS GAP LIGHT. Color White.	-----	RIGHT BANK	412.0
BROSHEARS LANDING, Mason Co., Ky.	-----	LEFT BANK	412.3
ROBINSONS LANDING, Mason Co., Ky.	-----	LEFT BANK	412.3
323. CHARLESTON BAR LIGHT. Color White.	-----	RIGHT BANK	413.1
Head of Charleston Bar. Low-water channel near right shore. Least depth, opposite light, 2.8 feet, open river. During high stages boats can pass either side of bar.			
LAWRENCE CREEK	-----	LEFT BANK	413.6
322. CHARLESTON BAR LIGHT No. 2. Color White.	-----	LEFT BANK	414.5
EAGLE CREEK	-----	RIGHT BANK	414.5
BIG BEASLEY CREEK	-----	LEFT BANK	414.8
Osborns Lower Landing, Mason Co., Ky.			
ROSS CREEK	-----	LEFT BANK	415.3
CRAIGS CREEK	-----	LEFT BANK	415.4
EAST RIPLEY, Hectoria, Brown Co., Ohio.	-----	RIGHT BANK	415.5
MOORES CREEK	-----	LEFT BANK	415.9
RED OAK CREEK	-----	RIGHT BANK	416.1
RIPLEY STATION, Mason Co., Ky.	-----	LEFT BANK	416.3
RIPLEY, Brown Co., Ohio (1,840)	-----	RIGHT BANK	416.4
Industries: Sawmill, foundry, manufacture of tobacco, agricultural machinery, fencing, general merchandising, etc. Electric line to Georgetown, connecting with Cincinnati, Georgetown & Portsmouth R. R. Ferry to Ripley Station Landing, Ky.			
CORNICKS CREEK	-----	RIGHT BANK	417.0
321. TAYLOR LANDING LIGHT. Color White.	-----	RIGHT BANK	417.7
LEES CREEK	-----	LEFT BANK	417.9
Easters Landing, Mason Co., Ky.			
DOVER, Mason Co., Ky. (886)	-----	LEFT BANK	418.5
Principal industries: Packing and shipping tobacco, canning of fruit and vegetables, brickmaking, and general merchandising. Railroad: C. & O. R. R. Skiff ferry to Levanna, Ohio.			
LEVANNA, Brown Co., Ohio (156)	-----	RIGHT BANK	418.6
Principal industries: Saw and planing mills; boat building, etc. Skiff ferry to Dover, Ky.			
BOLANDS GUT	-----	LEFT BANK	419.5
FRITZ or BOYDS LANDING, Mason Co., Ky.	-----	LEFT BANK	419.6
BOWERS LANDING, Brown Co., Ohio.	-----	RIGHT BANK	420.0
McMILLANS LANDING, Mason Co., Ky.	-----	LEFT BANK	420.1
STRAIGHT CREEK	-----	RIGHT BANK	420.4
Head of Straight Creek Bar. Channel near left bank; least depth, crossing above bar, 4.6 feet, open river.			
INDIAN CREEK	-----	LEFT BANK	420.8
320. STRAIGHT CREEK LIGHT. Color White.	-----	LEFT BANK	421.0
HOG RUN	-----	LEFT BANK	421.1
KELCHS RUN	-----	LEFT BANK	421.4
STONY POINT RUN and LANDING, Bracken Co., Ky.	-----	LEFT BANK	422.0
WHITE OAK CREEK	-----	RIGHT BANK	423.1
BARTLEYS RUN and LANDING, Bracken Co., Ky.	-----	LEFT BANK	423.2
HIGGINSPORT, Brown Co., Ohio (417)	-----	RIGHT BANK	423.5
Principal industries: Sawmill and boat building.			

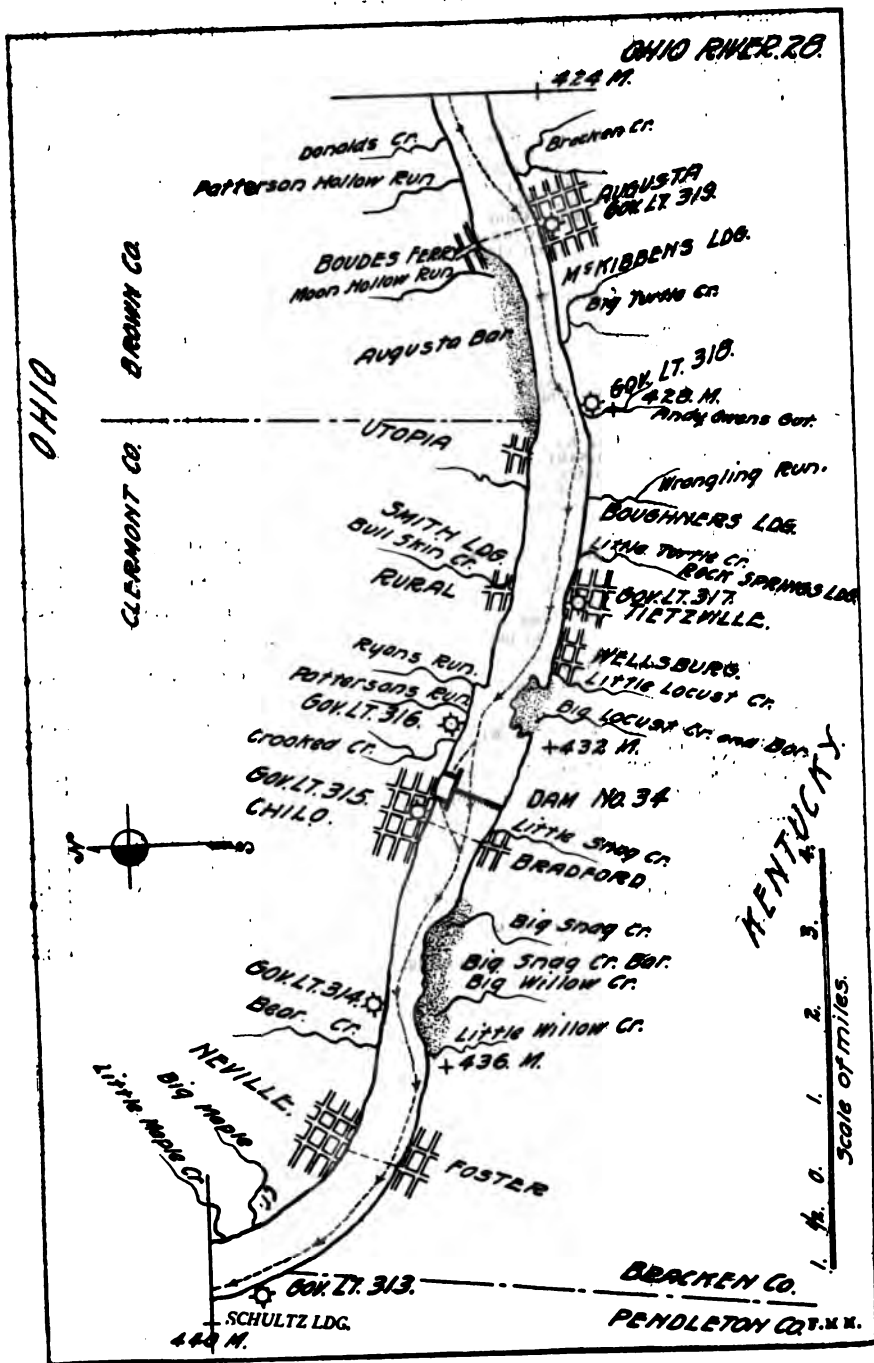


Chart No. 28.

Miles below
Pittsburgh.

DONALDS CREEK	RIGHT BANK	424.5
PATTERSON HOLLOW RUN	RIGHT BANK	424.9
BRACKEN CREEK	LEFT BANK	425.0
319. AUGUSTA LIGHT. Color White and Red	LEFT BANK	425.7
AUGUSTA, Bracken Co., Ky. (1,787)	LEFT BANK	425.7
This was formerly the county seat, afterwards removed to Brooksville. Railroad: C. & O. R. R. Steam ferry to Bondes Ferry, Ohio.		
BONDERS FERRY, Brown Co., Ohio	RIGHT BANK	425.7
Steam ferry to Augusta, Ky.		
MOON HOLLOW RUN	RIGHT BANK	426.2
McKIBBENS LANDING, Bracken Co., Ky.	LEFT BANK	426.4
Head of Augusta Bar, right bank. Channel near left bank. Least depth, near foot, 3 feet, open channel.		
BIG TURTLE CREEK	LEFT BANK	427.2
318. AUGUSTA BAR LIGHT. Color White.	LEFT BANK	427.9
ANDY OWENS GUT	LEFT BANK	428.0
UTOPIA, Clermont Co., Ohio (54)	RIGHT BANK	428.4
WRANGLING RUN	LEFT BANK	429.0
BOUGHNEES LANDING, Bracken Co., Ky.	LEFT BANK	429.2
LITTLE TURTLE CREEK	LEFT BANK	429.7
ROCK SPRINGS LANDING, Bracken Co., Ky.	LEFT BANK	430.0
SMITH LANDING, Clermont Co., Ohio	RIGHT BANK	430.2
317. TIEZVILLE LIGHT. Color White	LEFT BANK	430.3
TIEZVILLE	LEFT BANK	430.3
BULL SKIN CREEK	RIGHT BANK	430.3
EUCLID, Clermont Co., Ohio (41)	RIGHT BANK	430.3
WELLSBURG, Bracken Co., Ky.	LEFT BANK	430.9
Industries: General merchandising. Railroad: C. & O. R. R.		
LITTLE LOCUST CREEK	LEFT BANK	431.1
RYANS RUN	RIGHT BANK	431.5
BIG LOCUST CREEK	LEFT BANK	431.6
Locust Creek Bar, left bank. Channel near right bank. Least depth, at foot, 2.7 feet, open river.		
PATTERSONS RUN	RIGHT BANK	431.6
316. LOCUST BAR LIGHT. Color White.	RIGHT BANK	432.0
CROOKED CREEK	RIGHT BANK	432.2
OHIO RIVER DAM NO 84		432.6
Under construction 1922. When completed, lock on right bank: length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care neces- sary in passing dam while under construction. After completion note the directions and caution as in case of Dam No. 1, p. 25.		
LITTLE SNAG CREEK	LEFT BANK	433.1
315. CHILO LIGHT. Color White	RIGHT BANK	433.1
CHILO, Clermont Co., Ohio (314)	RIGHT BANK	433.1
Industries: General merchandising. Gasoline ferry to Bradford, Ky.		
BRADFORD, Bracken Co., Ky. (100)	LEFT BANK	433.3
Railroad: C. & O. R. R. Ferry to Chilo, Ohio.		
BIG SNAG CREEK	LEFT BANK	434.4
BIG SNAG CREEK DAM	LEFT BANK	434.4
Channel crossing to right bank. Least depth, near head, 2.2 feet, open river.		
BIG WILLOW CREEK	LEFT BANK	434.5
314. SNAG BAR LIGHT. Color White.	RIGHT BANK	435.5
BEAR CREEK	RIGHT BANK	435.9
LITTLE WILLOW CREEK	LEFT BANK	435.9
FOSTER, Bracken Co., Ky. (159)	LEFT BANK	437.2
Railroad: C. & O. R. R. Gasoline ferry to Neville, Ohio.		
NEVILLE, Clermont Co., Ohio (200)	RIGHT BANK	437.6
Gasoline ferry to Foster, Ky.		
BIG MAPLE CREEK	RIGHT BANK	439.1
313. SCHULTZ LANDING LIGHT. Color White.	LEFT BANK	439.5
SCHULTZ LANDING, Pendleton Co., Ky.	LEFT BANK	439.5
LITTLE MAPLE CREEK	RIGHT BANK	439.9

Chart No. 29.

Miles below
Pittsburgh.

HIG STEPSTONE CREEK	LEFT BANK	440.1
CIRSTOWN, Pendleton Co., Ky. (55)	LEFT BANK	440.2
Railroad: C. & O. R. R.		
OPOSSUM RUN	RIGHT BANK	440.3
LITTLE STEPSTONE CREEK AND LANDING, Pendleton Co., Ky	LEFT BANK	440.3
WAYS RUN	RIGHT BANK	441.3
MOSCOW, Clermont Co., Ohio (327)	RIGHT BANK	441.4
Ferry to Ivor Station, Ky.		
IVOR STATION, Pendleton Co., Ky	LEFT BANK	441.4
Industries: Stone quarries. Railroad: C. & O. R. R. Ferry to Moscow, Ohio.		
CREAMERS LANDING, Pendleton Co., Ky	LEFT BANK	441.9
Stone quarries.		
KENNEDYS LANDING, Pendleton Co., Ky	LEFT BANK	442.1
LITTLE INDIAN CREEK	RIGHT BANK	442.5
KINNEYS RUN	LEFT BANK	442.9
BUSSES RUN and ARNOLD'S LANDING, Clermont Co., Ohio	RIGHT BANK	443.0
BUSSE-HELDCKER BRICK CO., Campbell Co., Ky	LEFT BANK	443.2
812. POINT PLEASANT LIGHT. Color White	RIGHT BANK	443.7
HIG INDIAN CREEK	RIGHT BANK	443.7
MENTOR, Campbell Co., Ky. (100)	LEFT BANK	443.7
Railroad: C. & O. R. R. Ferry to Point Pleasant, Ohio.		
POINT PLEASANT, Clermont Co., Ohio (137)	RIGHT BANK	444.0
Mouth of Big Indian Creek. Skiff ferry to Mentor, Ky.		
CLIFFS RUN	LEFT BANK	444.4
FLANNIGANS LANDING, Campbell Co., Ky	LEFT BANK	444.8
YOUNGS CREEK	LEFT BANK	445.3
CLERMONTVILLE, Clermont Co., Ohio (100)	RIGHT BANK	446.0
811. CALIFORNIA LIGHT. Color White	LEFT BANK	446.0
CALIFORNIA, Campbell Co., Ky. (248)	LEFT BANK	446.0
Principal Industries: Finishing clothing and general merchandising. Railroad: C. & O. R. R.		
BOAT RUN	RIGHT BANK	446.3
TURKEY RUN	LEFT BANK	446.5
GRAVEYARD RUN	RIGHT BANK	446.8
810. RICHMOND BAR LIGHT. Color White	RIGHT BANK	447.0
BALLS RUN	LEFT BANK	447.0
HEAD OF RICHMOND BAR	RIGHT BANK	447.1
Channel both sides of bar at ordinary stages. Low water channel to right of bar, close to Ohio shore. Least water, head of bar, 1.7 feet, open river		
HERRINGERS RUN	LEFT BANK	447.4
LITTLE INDIAN CREEK	RIGHT BANK	447.6
809. RICHMOND BAR DAYMARK No. 2. Color White	LEFT BANK	447.7
PAINTERS RUN	LEFT BANK	448.0
REDGERS GUT	LEFT BANK	448.2
NEW RICHMOND, Clermont Co., Ohio (1,725)	RIGHT BANK	448.5
Principal Industries: Woolen and knitting mills; sawmill; general merchandising. Electric line to Cincinnati, Ohio. Ferry to New Richmond, Ky.		
NEW RICHMOND STATION, Campbell Co., Ky	LEFT BANK	448.5
Railroad: C. & O. R. R.		
OHIO RIVER DAM No. 35		449.7
Lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Note the directions and caution as in case of Dam No. 1, p. 28.		
TWELVE MILE OHIO CREEK	RIGHT BANK	450.0
TWELVE MILE KENTUCKY CREEK	LEFT BANK	450.2
ONEONTA, Campbell Co., Ky. (45)	LEFT BANK	450.5
Railroad: C. & O. R. R.		
GROHS LANDING, Campbell Co., Ky	LEFT BANK	451.0
ELEVEN MILE or POND CREEK	RIGHT BANK	451.2
BLAIRVILLE LANDING, Clermont Co., Ohio	RIGHT BANK	451.3
Electric line: New Richmond-Cincinnati, Ohio.		
TEN MILE KENTUCKY CREEK	LEFT BANK	452.4
807. PALESTINE LIGHT. Color White	RIGHT BANK	452.6
PALESTINE, Clermont Co., Ohio	RIGHT BANK	452.6
Principal Industries: General merchandising. Electric line: New Richmond-Cincinnati, Ohio.		
TEN AND NINE MILE OHIO CREEKS	RIGHT BANK	453.7
806. NINE MILE BAR LIGHT No. 3. Color White	LEFT BANK	454.2
HEAD OF NINE MILE BAR		454.3
Bar lies along right bank. Old channel to left of bar. Least depth near head, 2.5 feet, open river. New channel (dredged) follows right bank; depth, 5 feet; width when completed, 250 feet.		
EIGHT MILE OHIO CREEK	RIGHT BANK	454.3
EIGHT MILE KENTUCKY CREEK	LEFT BANK	455.0
STONE DIKE, from	LEFT BANK	455.2
UPPER END OF EIGHT MILE CRIB DIKE	LEFT BANK	455.4
STONE DIKE FROM EIGHT MILE DIKE	LEFT BANK	455.5
STONE DIKE FROM EIGHT MILE DIKE	LEFT BANK	455.5
FOOT OF EIGHT MILE DIKE, curving from Kentucky shore.		455.6
Channel 250 feet from dike, but crossing to right bank.		

Chart No. 30.

Miles below
Pittsburgh.

SEVEN MILE OHIO CREEK	RIGHT BANK	456.0
305. NINE MILE BAR LIGHT No. 1. Color White	RIGHT BANK	456.0
SEVEN MILE KENTUCKY CREEK	LEFT BANK	456.3
MELBOURNE LANDING, Campbell Co., Ky. (90)	LEFT BANK	456.4
Road to Melbourne Station, C. & O. R. R.		
SIX MILE OHIO CREEK	RIGHT BANK	457.0
SWEETWINE, Hamilton Co., Ohio	RIGHT BANK	457.0
Electric line: New Richmond-Cincinnati, Ohio.		
304. FIVE MILE BAR LIGHT. Color White	RIGHT BANK	457.5
STONE DIKE (low) from	RIGHT BANK	457.5
STONE DIKE (low) from	LEFT BANK	457.6
HEAD OF FIVE MILE BAR. Least depth, 2-3 feet in cut	RIGHT BANK	457.6
STONE DIKE (low) from	RIGHT BANK	457.7
GLEN PARK LANDING, Campbell Co., Ky.	LEFT BANK	457.8
Road to Glen Park Station, C. & O. R. R.		
FIVE MILE OHIO CREEK	RIGHT BANK	457.9
SILVER GROVE	LEFT BANK	457.9
FIVE MILE KENTUCKY CREEK	LEFT BANK	458.0
FOUR MILE OHIO CREEK	RIGHT BANK	458.3
UPPER END OF UPPER FOUR MILE CRIB DIKE	RIGHT BANK	458.6
Sometimes known as Campbells Dike.		
303. FOUR MILE BAR LIGHT No. 6. Color White	LEFT BANK	459.0
UPPER END OF KENTUCKY FOUR MILE CRIB DIKE	LEFT BANK	459.1
Sometimes known as Gander Dike. Least depth, upper end, 2.9 feet.		
PHOENIX GROVE STATION, C. & O. R. R.	LEFT BANK	459.4
OHIO RIVER DAM No. 36		459.2
Under construction, 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution as in case of Dam No. 1, p. 25.		
FOUR MILE KENTUCKY CREEK	LEFT BANK	459.7
LOWER FOUR MILE CRIB DIKE	RIGHT BANK	459.8
(Coney Island Pleasure Resort.) Electric lines: New Richmond-Cincinnati, Ohio; Bethel, Batavia, Georgetown, and Ripley, Ohio. Least water, foot of dike, about 3 feet. Channel usually near dike, but occasionally crosses to Woodhouse Chute on Kentucky shore.		
302. FOUR MILE BAR LIGHT, FLOAT LIGHT No. 4. Color White	LEFT BANK	460.2
PLEASANT RUN	LEFT BANK	460.2
301. FOUR MILE BAR LIGHT No. 2. Color White	LEFT BANK	460.5
BRENT, Campbell Co., Ky. Railroad: C. & O. R. R.	LEFT BANK	460.8
THREE MILE KENTUCKY CREEK	LEFT BANK	460.4
THREE MILE OHIO CREEK	RIGHT BANK	460.6
CALIFORNIA, Hamilton Co., Ohio	RIGHT BANK	461.0
Now a part of Cincinnati, Ohio. Electric lines to Cincinnati, New Richmond, Bethel, Batavia, Georgetown, and Ripley, Ohio.		
CINCINNATI WATERWORKS PUMPING STATION	RIGHT BANK	461.4
FORT THOMAS (U. S. Post), Ky., on bank	LEFT BANK	461.5
COVINGTON WATERWORKS PUMPING STATION AND INCLINE	LEFT BANK	461.6
ICE PIERS, STEWARTS LANDING	LEFT BANK	461.8
NEWPORT WATERWORKS PUMPING STATION	LEFT BANK	462.2
LITTLE MIAMI RIVER. See Tributary streams	RIGHT BANK	462.6
ICE PIERS, BROWNS COAL HARBOUR	LEFT BANK	462.8
ICE PIERS, COAL HAVEN HARBOUR	LEFT BANK	463.5
ICE PIERS, MARIETS LANDING, Carrel St., Cincinnati, Ohio	RIGHT BANK	463.9
HEAD OF DAYTON BAR	LEFT BANK	464.2
EAST END GAS WORKS	RIGHT BANK	465.0
FOOT OF HERRY STREET, Dayton, Ky., Campbell Co.	LEFT BANK	466.1
CINCINNATI MARINE WAYS	RIGHT BANK	466.5
FOOT OF TAYLOR AVENUE, Bellevue, Campbell Co., Ky.	LEFT BANK	467.0
TAYLOR CREEK	LEFT BANK	467.4
LOUISVILLE & NASHVILLE RAILWAY AND HIGHWAY BRIDGE		467.9
Channel span, 490 feet; height, 102 feet.		
FOOT OF MONMOUTH STREET, Newport, Campbell Co. (\$0.309)	LEFT BANK	468.0
Bellevue, adjoining Newport on the east, had (1910) a population of 6,683, and Dayton, next east of Bellevue, had the same year a population of 6,979. Railroads: L. & N. and C. & O.		
NEWPORT & CINCINNATI HIGHWAY BRIDGE		468.2
Channel span, 302 feet; height, 102.4 feet and 108 feet.		
PUBLIC LANDING, Cincinnati, Ohio (\$62,591)	RIGHT BANK	468.5
Industries include banking, insurance, and manufacturing of all kinds. Railroads: Pennsylvania lines, N. Y. Central lines, B. & O., C. & O., L. & N., N. & W., Cincinnati Southern, C. H. & D., Chi., Cin. & Lou., and allied lines. Electric interurban lines, north, east, and west. Miami and Erie Canal in outskirts of city, has no direct connection with the Ohio River.		
LICKING RIVER	LEFT BANK	468.6
This stream includes the main Licking and two principal branches, the North and South Forks. See Tributary streams.		
COVINGTON & CINCINNATI HIGHWAY SUSPENSION BRIDGE		468.7
Channel span, 1,004 feet; height, 92 feet and 161.5 feet.		
FOOT OF WASHINGTON STREET, Covington, Kenton Co., Ky. (53,270)	LEFT BANK	469.0
Railroads: L. & N. and C. & O.		
CHESAPEAKE & OHIO RAILWAY AND HIGHWAY BRIDGE		469.3
Channel span, 524 feet; height, 105.3 feet.		
WEST COVINGTON, Kenton Co., Ky.	LEFT BANK	470.0
CINCINNATI SOUTHERN RAILWAY BRIDGE		470.7
Channel span, 500 feet; height, 101.5 feet.		
MOUTH OF MILL CREEK	RIGHT BANK	470.8
LUDLOW, Kenton Co., Ky. (4,168)	LEFT BANK	471.1

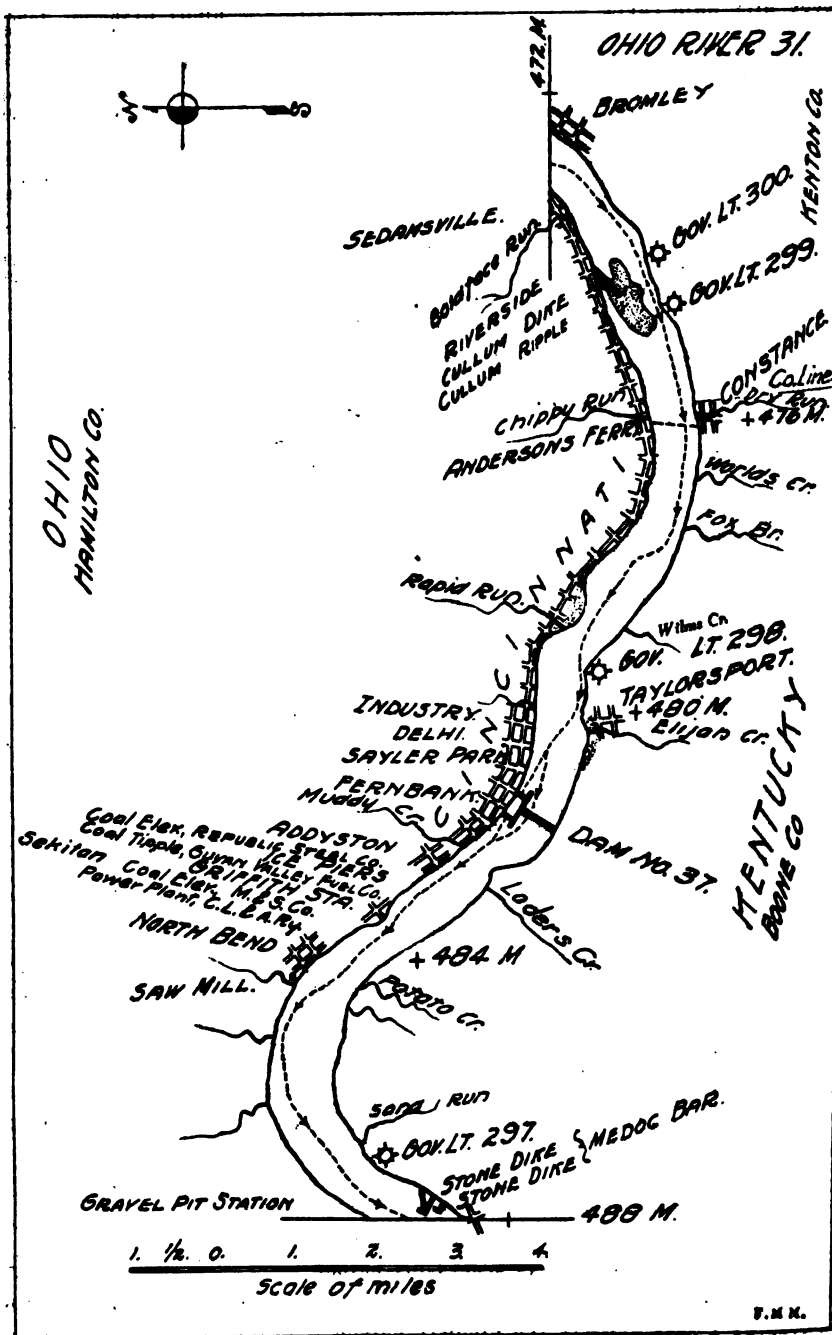


Chart No. 31.

Miles below
Pittsburgh.

BRIMLEY, Kenyon Co., Ky. (810)	LEFT BANK	472.2
Electric cars to Covington and Cincinnati.		
SEDAMSVILLE, Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	472.3
BOLD FACE RUN	RIGHT BANK	472.4
FLEISCHMANN'S DISTILLERY	RIGHT BANK	472.9
RIVERSIDE, Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	473.5
Electric cars to Cincinnati-Andersons Ferry.		
HEAD OF CULLUM DIKE (stone and piling) from	RIGHT BANK	473.7
Channel near left bank. Least water, at head 3.4 feet, open river.		
300. CULLUM RIPPLE LIGHT No. 4. Color White.	LEFT BANK	473.9
299. CULLUM RIPPLE LIGHT No. 2. Color White.	LEFT BANK	474.5
CHIPPY RUN	RIGHT BANK	475.9
ANDERSONS FERRY, Hamilton Co., Ohio	RIGHT BANK	475.9
Suburb of Cincinnati, Ohio. C. L. & A. electric line to Lawrenceburg and Aurora, Ind.; Harrison, Ohio, and intermediate points. Railroads: B. & O. S. W. to Louisville, St. Louis, etc. Ferry to Constance, Ky.		
DRY RUN and CONSTANCE, Ky. (85)	LEFT BANK	475.9
WORLDS CREEK	LEFT BANK	476.6
FOX BRANCH	LEFT BANK	477.3
RAPID RUN	RIGHT BANK	479.0
298. RAPID RUN LIGHT. Color White.	LEFT BANK	479.3
WILMS CREEK	LEFT BANK	479.4
INDUSTRY, Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	480.0
Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.		
TAYLORSFORD, Boone Co., Ky.	LEFT BANK	480.0
ELIJAH CREEK	LEFT BANK	480.3
DELHI, Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	480.3
Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W., C. C. C. & St. L. Ferry to Taylorsford, Ky.		
SAYLEE PARK (Home City), Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	480.7
Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W. and C. C. C. & St. L.		
OHIO RIVER DAM No. 37		481.3
Lock on right bank. Length, 600 feet; width, 110 feet; width of navigable pass, 900 feet. Note directions and caution as in case of Dam No. 1, p. 25.		
FERNBANK, Hamilton Co., Ohio (suburb of Cincinnati)	RIGHT BANK	481.7
Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W. and C. C. C. & St. L.		
MUDDY CREEK—Corporation Line Cincinnati, Ohio	RIGHT BANK	482.3
ADDYSTON, Hamilton Co., Ohio (1,543)	RIGHT BANK	482.5
Industries: Republic Steel Co., manufacturing cast-iron water pipe, etc. Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W. and C. C. C. & St. L.		
LODEES CREEK	LEFT BANK	482.5
COAL ELEVATOR, Republic Steel Co.	RIGHT BANK	482.7
ICE PIER, Guyan Valley Fuel Co.	RIGHT BANK	483.1
COAL, TIPPLE, Guyan Valley Fuel Co.	RIGHT BANK	483.2
GRIFFITH STATION, Hamilton Co., Ohio	RIGHT BANK	483.3
Electric cars: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W. and C. C. C. & St. L.		
SEKITAN, P. O., Hamilton Co., Ohio (1,100)	RIGHT BANK	484.1
COAL ELEVATOR, MARMET & SMITH CO.	RIGHT BANK	484.1
POWER PLANT, C. L. & A. Electric Street R. R. Co.	RIGHT BANK	484.2
NORTH BEND, Hamilton Co., Ohio (800)	RIGHT BANK	484.5
Electric lines: Cincinnati, Ohio; Lawrenceburg and Aurora, Ind.; and Harrison, Ohio. Railroads: B. & O. S. W. and C. C. C. & St. L.		
POTATO CREEK	LEFT BANK	484.7
SAWMILL, North Bend, Ohio	RIGHT BANK	484.7
SAND RUN	LEFT BANK	486.3
297-a. PIKE PEAK LIGHT. Color White.	RIGHT BANK	486.3
297. MEDOC BAR LIGHT No. 4. Color White.	LEFT BANK	486.9
RIPRAP STONE DIKE (low)	LEFT BANK	487.4
Channel to right of dike. Least depth, 3.7 feet, near upper dike, open river.		
RIPRAP STONE DIKE (low)	LEFT BANK	487.7
GRAVEL PIT STATION (B. & O. S. W. R. R.)	RIGHT BANK	488.0

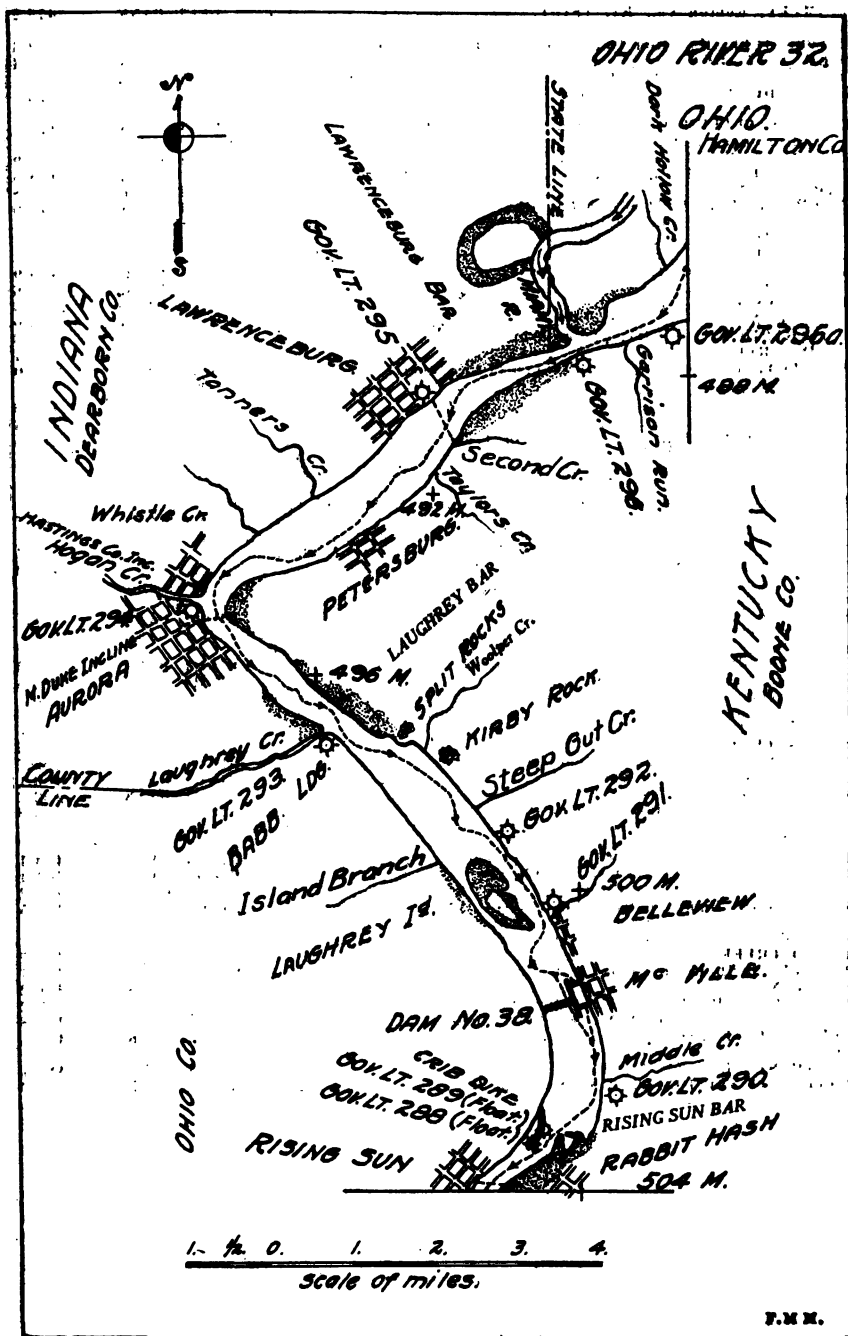


Chart No. 32.

Miles below
Pittsburgh.

DARK HOLLOW CREEK -----	RIGHT BANK -----	488.2
296a. MEDOC BAR LIGHT No. 2. Color White-----	LEFT BANK -----	488.8
GARRISON RUN -----	LEFT BANK -----	488.9
296. BIG MIAMI LIGHT. Color White-----	LEFT BANK -----	489.4
MIAMI RIVER -----	RIGHT BANK -----	489.4
At the mouth of the Miami, a high bar extends half way across the Ohio Channel, lies along the left bank, deep water at all stages. State line, Ohio-Indiana, right bank of Miami at mouth. (For Miami River, see Tributary streams.)		
HEAD OF LAWRENCEBURG BAR -----	RIGHT BANK -----	491.0
Channel crosses to left bank. Least depth, near head 2.5 feet, open river.		
295. LAWRENCEBURG LIGHT. Color White, Red front-----	RIGHT BANK -----	491.4
LAWRENCEBURG (8,980), county seat of Dearborn Co., Ind.-----	RIGHT BANK -----	491.4
Principal industries: Flouring mills, cooperage, chair factory, carriage works, manufacture of veneers, saws and cutlery, shoes and coffins, banking and general merchandising. Railroads: B. & O. S. W. R. R., and C. C. C. & St. L. Electric line to Cincinnati, Ohio, and Aurora, Ind. Ferry to Kentucky shore.		
SECOND OR FERRY CREEK -----	LEFT BANK -----	491.8
TAYLORS CREEK -----	LEFT BANK -----	491.7
TANNERS CREEK -----	RIGHT BANK -----	492.0
PETERSBURG , Boone Co., Ky. (893)-----	LEFT BANK -----	492.0
Principal industries: Flour mills and general merchandising.		
294a. PETERSBURG LIGHT. Color White-----	LEFT BANK -----	492.0
WHISTLE CREEK -----	RIGHT BANK -----	492.9
MOGAN CREEK -----	RIGHT BANK -----	494.7
M. DUKE INCLINE (below Hogan Creek)-----	RIGHT BANK -----	494.7
294. AURORA LIGHT. Color White, Red front-----	RIGHT BANK -----	494.8
AURORA (4,410), Dearborn Co., Ind.-----	RIGHT BANK -----	494.8
Principal industries: Flour mills, manufacture of furniture, shoes, coffins, foundry and machine shop, cooperage, carriage works, tool works, creamery, coal elevator, banking and general merchandising. Railroad: B. & O. S. W. Electric line: Lawrenceburg-Cincinnati. Stage to Rising Sun, Ind., ferry to Kentucky shore.		
LAUGHREY BAR -----	LEFT BANK -----	496.2
LAUGHREY CREEK -----	RIGHT BANK -----	496.6
Lower portion of creek navigable at ordinary stages.		
293. LAUGHREY CREEK LIGHT. Color White-----	RIGHT BANK -----	496.7
BABB LANDING , Ohio Co., Ind.-----	RIGHT BANK -----	496.8
SPLIT ROCKS -----	LEFT BANK -----	497.2
WOOLPER CREEK -----	LEFT BANK -----	497.7
KIRBY ROCK -----	LEFT BANK -----	497.9
A fantastic formation of natural cemented gravel.		
STEEP GUT CREEK -----	LEFT BANK -----	498.5
292. LAUGHREY ISLAND LIGHT No. 4. Color White-----	LEFT BANK -----	499.1
ISLAND BRANCH -----	RIGHT BANK -----	499.3
HEAD OF LAUGHREY ISLAND -----	RIGHT BANK -----	499.3
Channel near left bank. Least depth at low water, a little below U. S. Light No. 292, 3 feet, open river.		
291. LAUGHREY ISLAND LIGHT No. 2. Color White-----	LEFT BANK -----	500.2
Channel crosses toward right bank and then returns. Least depth, at foot of island, 2.7 feet, open river.		
BELLEVUE , Boone Co., Ky.-----	LEFT BANK -----	500.7
OHIO RIVER DAM No. 25 -----		501.3
Under construction 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 700 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution as in case of Dam No. 1, p. 25.		
MAXVILLE (or Moxville), Boone Co., Ky.-----	LEFT BANK -----	501.3
Ferry to Indiana shore.		
MIDDLE CREEK -----	LEFT BANK -----	502.4
290. MIDDLE CREEK LIGHT. Color White-----	LEFT BANK -----	502.6
Channel crosses toward right bank.		
HEAD OF CREEP DIKE -----	RIGHT BANK -----	503.2
Channel between dike and Rising Sun Bar. Least depth, near head of bar, 4.2 feet, open river. (N. B.—Not safe to run Kentucky shore except at high stages.)		
289. RISING SUN FLOAT LIGHT. No 7. Color White-----	RIGHT OF CHANNEL -----	503.5
During low water stages, on dike at mid-length.		
288. RISING SUN FLOAT LIGHT. No. 5. Color White-----	RIGHT OF CHANNEL -----	503.7
During low water stages at end of dike.		
HABBIT HASH , Boone Co., Ky. (65)-----	LEFT BANK -----	504.0
Ferry to Rising Sun.		
RISING SUN , County seat of Ohio Co., Ind. (1,513)-----	RIGHT BANK -----	504.0
Stage to Aurora, Ind. Ferry to Rabbit Hash, Ky.		

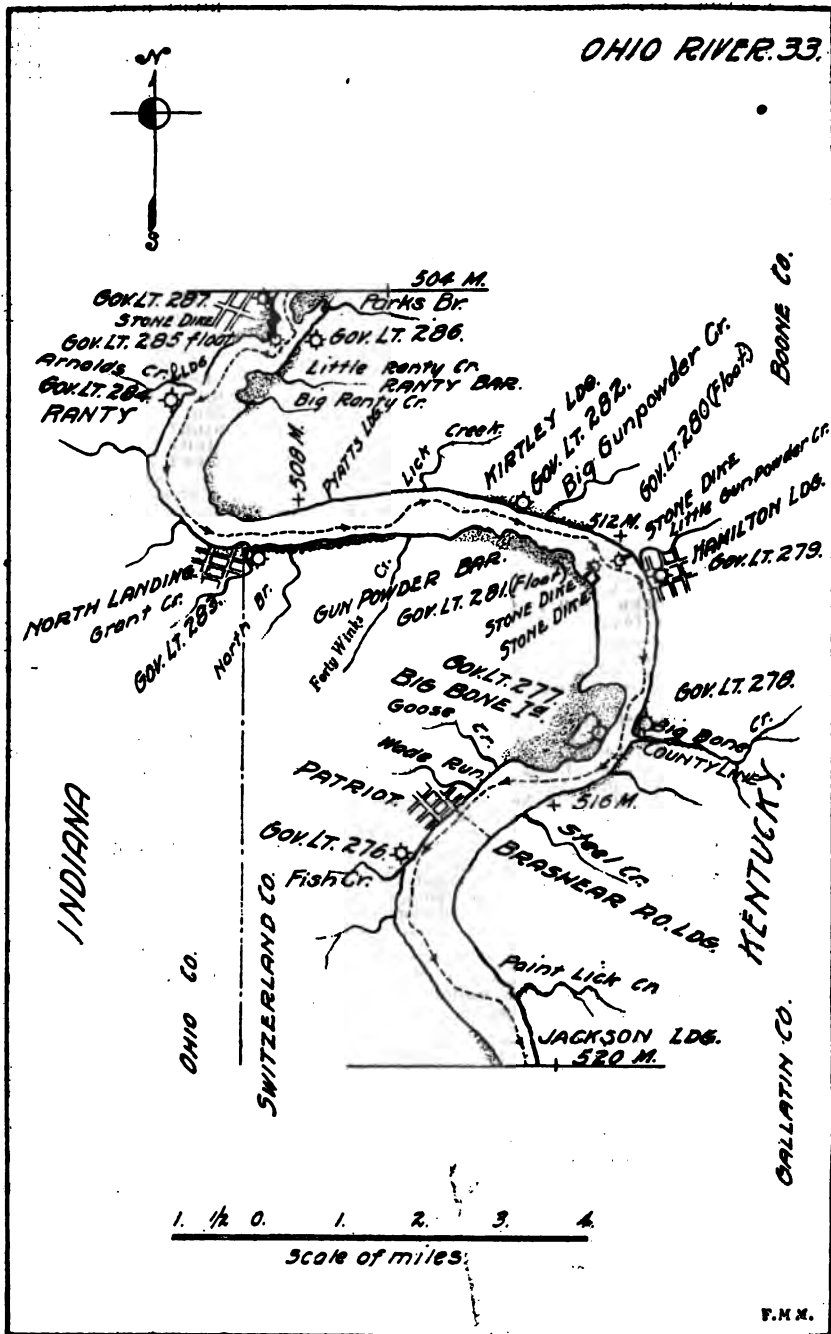


Chart No. 33.

Miles below
Pittsburgh.

PARKS BRANCH -----	LEFT BANK	504.0
287. RISING SUN LIGHT No. 3. Color Red-----	RIGHT BANK	504.1
Channel crosses to left bank. Least depth on Middle Bar, 3 feet, open river.		
HEAD OF STONE and PILE DIKE curving from -----	RIGHT BANK	504.3
286. RABBIT HASH LIGHT. Color White-----	LEFT BANK	504.4
285. RISING SUN FLOAT LIGHT No. 1. Color White-----	RIGHT OF CHANNEL	504.4
Over foot of dike. In low stages on lower end of dike.		
LITTLE RANTY CREEK -----	LEFT BANK	505.3
A gravel bar extends between the Ranty Creeks. Channel to right of bar.		
Least water 3.3 feet, open river.		
RANTY BAR, Head -----	LEFT BANK	505.3
BIG RANTY CREEK -----	LEFT BANK	505.6
ARNOLDS CREEK and LANDING, Ind. -----	RIGHT BANK	505.8
284. RANTY BAR LIGHT. Color White-----	RIGHT BANK	505.9
Channel from this point follows close to right bank.		
RANTY, IND. -----	RIGHT BANK	505.9
NORTH LANDING, Ohio Co., Ind. (65) -----	RIGHT BANK	507.3
GRANT CREEK -----	RIGHT BANK	507.5
283. NORTH LIGHT. Color White-----	RIGHT BANK	507.5
NORTH BRANCH -----	RIGHT BANK	508.0
PYATTS LANDING, Boone Co., Ky. -----	LEFT BANK	508.3
LICK CREEK -----	LEFT BANK	509.6
FORTY WINKS CREEK -----	RIGHT BANK	509.6
KIRTLEY LANDING, Boone Co., Ky. -----	LEFT BANK	510.2
HEAD OF GUNPOWDER BAR -----	RIGHT BANK	510.4
Channel to left of bar.		
282. GUNPOWDER LIGHT No. 4. Color White-----	LEFT BANK	510.9
BIG GUNPOWDER CREEK -----	LEFT BANK	511.3
281. GUNPOWDER FLOAT LIGHT No. 1. Color White-----	RIGHT OF CHANNEL	511.9
End of small stone and pile dike from right bank.		
STONE and PILE DIKE -----	RIGHT BANK	512.1
280. GUNPOWDER FLOAT LIGHT No. 2, end of dike. Color White-----	LEFT OF CHANNEL	512.2
STONE DIKE -----	LEFT BANK	512.3
LITTLE GUNPOWDER or LANDING CREEK -----	LEFT BANK	512.3
279. HAMILTON LANDING LIGHT. Color White-----	LEFT BANK	512.6
Hamilton, Boone Co., Ky. (60). Industries: General merchandising.		
HEAD OF BIG BONE BAR or ISLAND -----	RIGHT BANK	514.3
Channel past bar lies near left bank, with good depth of water.		
278. BIG BONE LIGHT No. 2. Color White-----	LEFT BANK	514.4
277. BIG BONE LIGHT No. 1, on island. Color White-----	RIGHT OF CHANNEL	514.6
BIG BONE CREEK -----	LEFT BANK	514.6
GOOSE CREEK and LANDING -----	RIGHT BANK	516.1
STEEL CREEK -----	LEFT BANK	516.3
WADH RUN -----	RIGHT BANK	516.5
PATRIOT, Switzerland Co., Ind. (340) -----	RIGHT BANK	516.8
Ferry to Brashear post office landing.		
LANDING for Brashear post office, Gallatin Co., Ky. -----	LEFT BANK	516.8
276. PATRIOT BEND LIGHT. Color White-----	RIGHT BANK	517.3
FISH CREEK -----	RIGHT BANK	517.4
PAINT LICK CREEK -----	LEFT BANK	519.0
JACKSON LANDING, Gallatin Co., Ky. -----	LEFT BANK	519.7

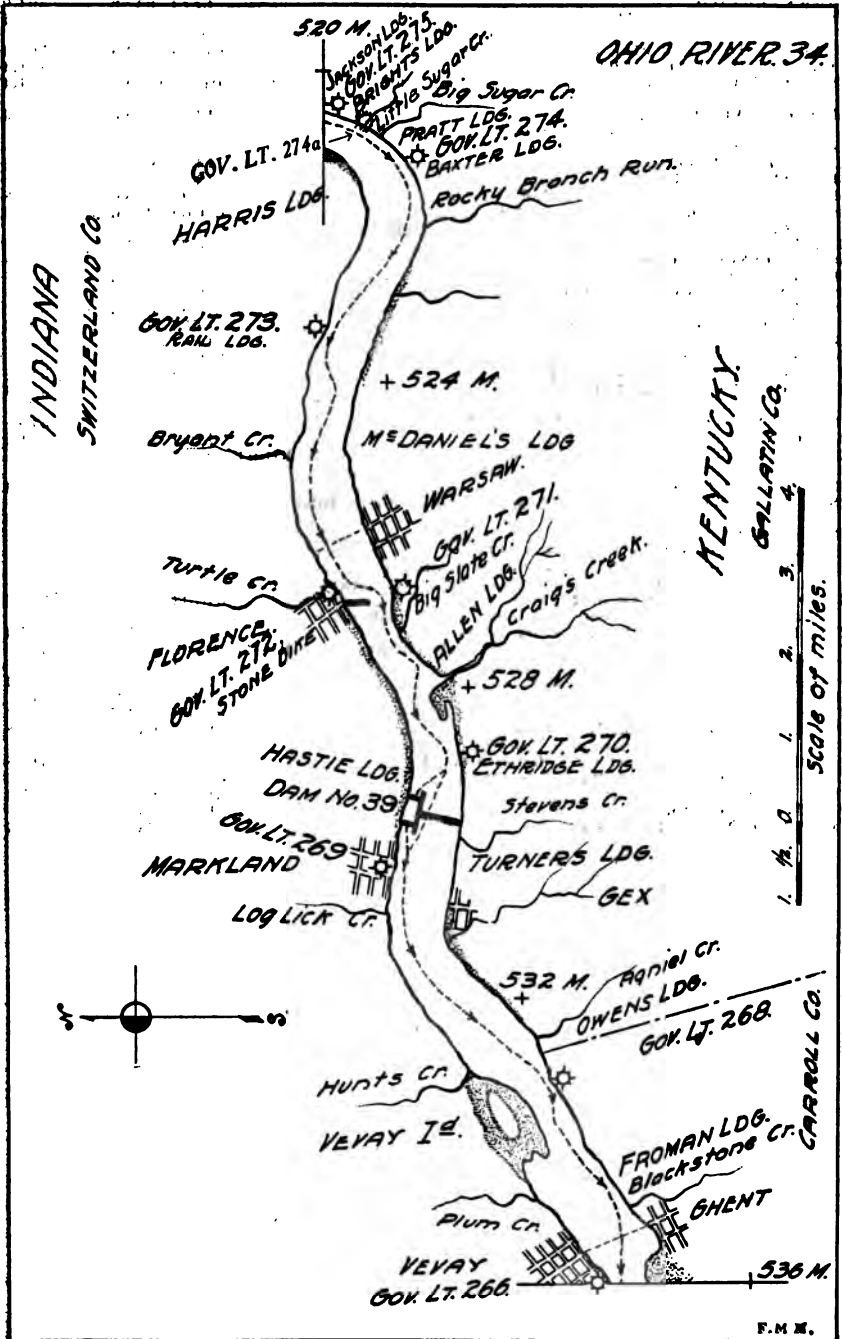


Chart No. 34.

Miles below
Pittsburgh.

275. JACKSON LANDING LIGHT. Color White.	LEFT BANK	516.9
BRIGHTS LANDING, Gallatin Co., Ky.	LEFT BANK	520.3
LITTLE SUGAR CREEK	LEFT BANK	520.3
274a. SUGAR CREEK LIGHT. Color White.	LEFT BANK	520.3
RIG SUGAR CREEK	LEFT BANK	520.3
PRATT LANDING, Gallatin Co., Ky.	LEFT BANK	520.3
HARRIS LANDING, Switzerland Co., Ind.	RIGHT BANK	520.3
274. BAXTER LANDING LIGHT. Color White.	LEFT BANK	521.1
ROCKY BRANCH RUN (or JOHNSONS BRANCH)	LEFT BANK	522.0
273. BAIL LANDING LIGHT. Color White.	RIGHT BANK	522.3
MCDANIELS LANDING, Gallatin Co., Ky.	LEFT BANK	524.3
BRYANT CREEK	RIGHT BANK	525.0
WARSAW, County seat, Gallatin Co., Ky. (900)	LEFT BANK	525.9
Established in 1831 and first known as Fredericksburg. Industries: Flouring mills, tobacco packing and shipping, machine shops, furniture manufacturing, and general merchandising. Connection by wagon road, 9 miles, to L. & N. R. R. at Sparta, Ky. Ferry to right bank.		
272. FLORENCE LIGHT. Color White, Red Front.	RIGHT BANK	526.2
TURTLE CREEK	RIGHT BANK	526.3
FLORENCE, Switzerland Co., Ind. (240)	RIGHT BANK	526.3
By wagon road, via Warsaw, about 10 miles to railroad at Sparta, Ky.		
271. WARSAW BAR LIGHT. Color White.	LEFT BANK	526.4
WARSAW DIKE, riprap	RIGHT BANK	526.5
Top about 4 feet above low water; channel to left.		
BIG SLATE CREEK	LEFT BANK	526.7
ALLEN LANDING, Gallatin Co., Ky.	LEFT BANK	527.4
CRAIGS CREEK	LEFT BANK	527.7
270. ETHRIDGE LANDING LIGHT. Color White.	LEFT BANK	528.9
HASTIE LANDING, Switzerland Co., Ind.	RIGHT BANK	529.3
OHIO RIVER DAM No. 39		529.6
Under construction, 1920. When completed, lock on right bank; length, 800 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution given as in case of Dam No. 1, p. 25.		
STEVENS CREEK	LEFT BANK	529.9
TURNERS LANDING, Gallatin Co., Ky.	LEFT BANK	530.2
269. MARKLAND LIGHT. Color White, Red Front.	RIGHT BANK	530.3
MARKLAND, Switzerland Co., Ind. (200)	RIGHT BANK	530.3
Industries: General merchandising. Wagon road via Warsaw to L. & N. R. R. at Sparta, Ky., about 13 miles. By wagon road to Madison, Ind., about 24.5 miles.		
LOG LICK CREEK	RIGHT BANK	530.8
GEX, Gallatin Co., Ky. (39)	LEFT BANK	530.9
HUNTS CREEK	RIGHT BANK	532.5
AGNIEL CREEK	LEFT BANK	532.9
VEVAY ISLAND, head	RIGHT BANK	533.0
Channel to left of island. Good depth of water.		
OWENS LANDING, Gallatin Co., Ky.	LEFT BANK	533.0
268. VEVAY ISLAND LIGHT. Color White.	LEFT BANK	533.1
PLUM CREEK	RIGHT BANK	534.0
FROMAN LANDING, Carroll Co., Ky.	LEFT BANK	534.3
BLACKSTONE CREEK	LEFT BANK	534.9
GHEHT, Carroll Co., Ky. (401)	LEFT BANK	535.2
Ferry to Vevay, Ind.; wagon road, 10 miles, to L. & N. R. R., Sanders, Ky.		
VEVAY, Switzerland Co., Ind. (1,256)	RIGHT BANK	535.2
Ferry to Ghent, Ky., and thence wagon road, 10 miles, to Sanders, Ky. Also wagon road, 19.5 miles, to Penna. R. R. at Madison, Ind.		
VEVAY BAR, head	LEFT BANK	535.7
266. VEVAY BAR LIGHT. Color White.	RIGHT BANK	535.9

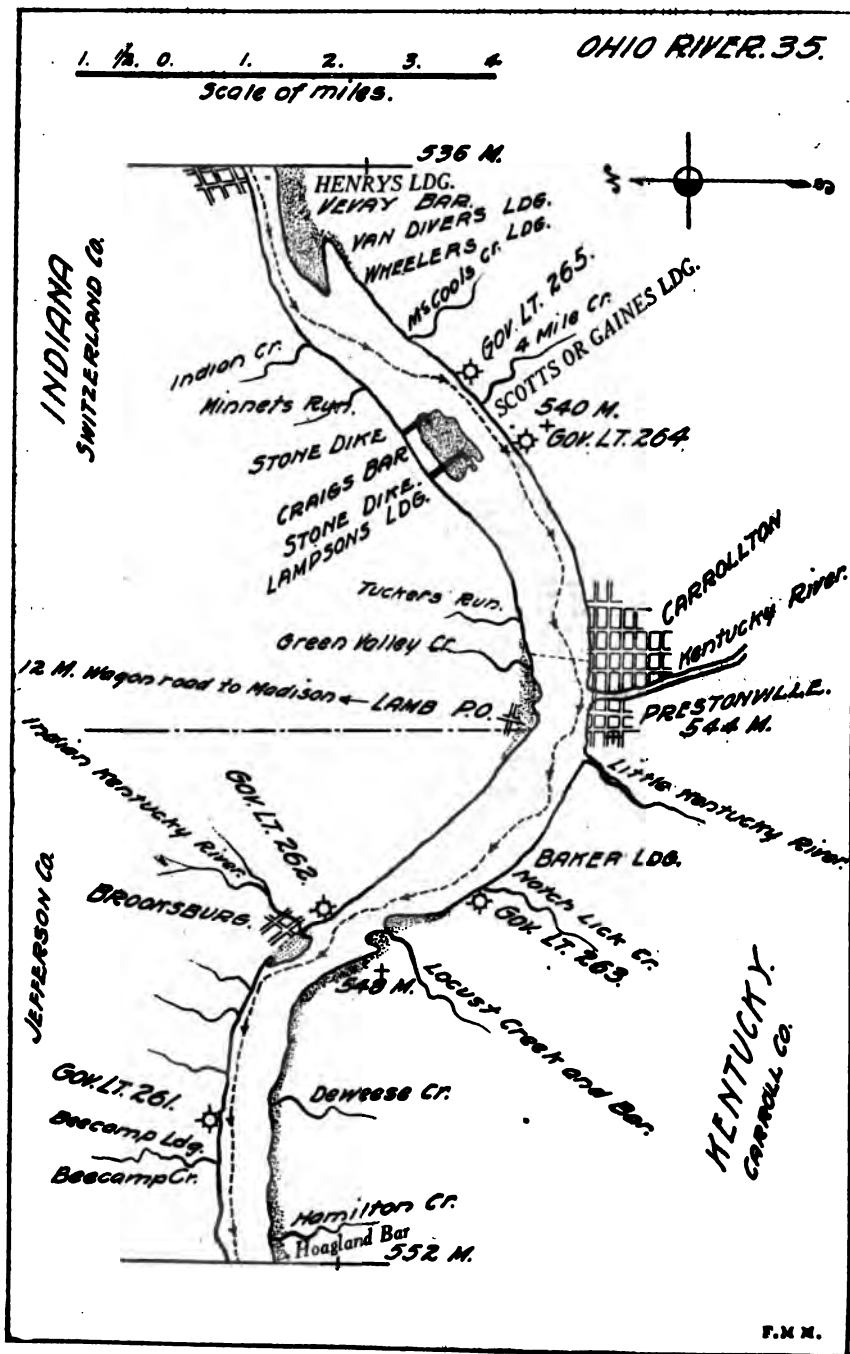


Chart No. 35.

Miles below
Pittsburgh.

HENRYS LANDING, Carroll Co., Ky.	LEFT BANK	536.5
VAN DIVERS LANDING, Carroll Co., Ky.	LEFT BANK	537.5
WHEELERS LANDING, Carroll Co., Ky.	LEFT BANK	537.8
INDIAN CREEK	RIGHT BANK	538.0
MCCOOLS CREEK	LEFT BANK	538.4
MINNETS RUN	RIGHT BANK	538.5
HEAD OF CRAIGS BAR	RIGHT BANK	539.1
Channel to left of bar and dike, with least depth, near foot, 4 feet, open river.		
STONE DIKE (upper) from	RIGHT BANK	539.2
265. CRAIG BAR LIGHT No. 4. Color White	LEFT BANK	539.2
FOUR MILE CREEK	LEFT BANK	539.6
STONE DIKE (lower) from	RIGHT BANK	539.8
SCOTTS or GAINES LANDING, Carroll Co., Ky.	LEFT BANK	539.9
LAMPSONS LANDING, Switzerland Co., Ind.	RIGHT BANK	539.9
264. CRAIG BAR LIGHT No. 2. Color White	LEFT BANK	540.2
TUCKERS RUN	RIGHT BANK	542.5
CARBOLLTON, Carroll Co., Ky., upper landing	LEFT BANK	543.0
GREEN VALLEY CREEK	RIGHT BANK	543.2
CARBOLLTON, Carroll Co., Ky. (1,906), lower landing	LEFT BANK	543.4
County seat Carroll Co. Carrolton is connected by a branch 8 miles in length with Worthville on the main line of the L. & N. E. R. There is a ferry to the right bank of the Ohio, and a highway bridge crossing the Kentucky River to Prestonville. Principal industries: Furniture factory, tobacco re-handling and shipping, sawmills, brick manufacturing, banking, and general merchandising.		
KENTUCKY RIVER	LEFT BANK	543.4
For Kentucky River, see Tributary streams.		
PRESTONVILLE, Carroll Co., Ky. (162)	LEFT BANK	543.6
LAMB post office, Switzerland Co., Ind. (46)	RIGHT BANK	544.0
Wagon road to Madison, Ind., 12 miles.		
LITTLE KENTUCKY RIVER	LEFT BANK	544.3
BAKER LANDING, Carroll Co., Ky.	LEFT BANK	545.6
NOTCH LICK CREEK	LEFT BANK	546.3
263. NOTCH LICK LIGHT. Color White	LEFT BANK	546.4
LOCUST CREEK	LEFT BANK	547.4
262. LOCUST CREEK BAR LIGHT. Color White	RIGHT BANK	548.0
INDIAN KENTUCKY RIVER	RIGHT BANK	548.2
BROOKSBURG, Jefferson Co., Ind. (150)	RIGHT BANK	548.3
Principal industries: General merchandise. Wagon road to Madison, Ind., 7 miles.		
DEWESEE CREEK	LEFT BANK	550.1
261. BEECAMP LANDING LIGHT. Color White	RIGHT BANK	550.4
BEECAMP CREEK	RIGHT BANK	550.8
HAMILTON CREEK	LEFT BANK	551.7
HEAD OF HOAGLAND BAR	LEFT BANK	551.7

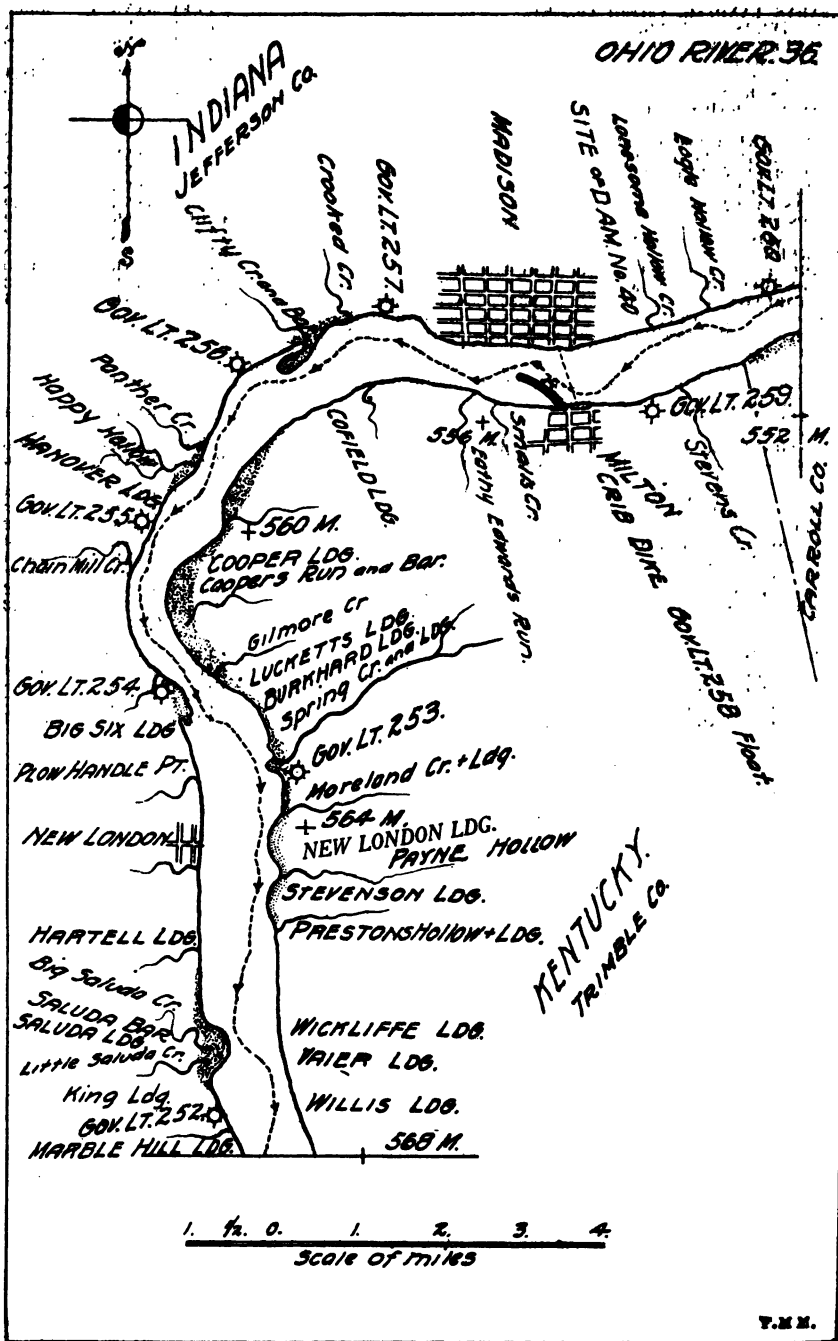


Chart No. 36.

Miles below
Pittsburgh.

260. HOAGLAND LIGHT. Color White.	RIGHT BANK	552.3
EAGLE HOLLOW CREEK	RIGHT BANK	552.1
OHIO RIVER DAM No. 40	RIGHT BANK	552.5
Approval of dam postponed. If constructed, lock will be on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 400 feet. (NOTE.—Should this dam be constructed the directions and caution given for Dam No. 39, p. 91, and Dam No. 1, p. 25, will apply to this dam while under construction and in operation.)		
STEVENS CREEK	LEFT BANK	553.7
LONESOME HOLLOW CREEK	RIGHT BANK	553.9
259. RICHWOOD LIGHT. Color White.	LEFT BANK	554.0
MILTON, Trimble Co., Ky. (855)	LEFT BANK	554.0
Established by act of Virginia in 1789. Ferry to Madison, Ind. Wagon road, 20.5 miles, to L. & N. R. R. at Worthville, and 19 miles to Sulphur, via Bedford, county seat of Trimble County.		
MADISON CRIB DIKE, head curving from	LEFT BANK	555.0
Good depth of water past dike, with Louisville dam up. Channel to right.		
258. MADISON DIKE FLOAT LIGHT. Color White.	LEFT OF CHANNEL	555.2
MADISON, Jefferson Co., Ind. (6,984)	RIGHT BANK	555.5
Principal Industries: Shipyard, sawmills, banking and general merchandising. Railroads: P. C. C. & St. L. to North Vernon and beyond. At North Vernon, connections with B. & O. S. W. and C. C. C. & St. L. Rys.		
SMALLS CREEK	LEFT BANK	555.9
KATHY EDWARDS RUN	LEFT BANK	556.1
257. CLIFTY CREEK LIGHT No. 3. Color White.	RIGHT BANK	557.2
CROOKED CREEK and BAR	RIGHT BANK	557.5
CLIFTY CREEK and BAR	RIGHT BANK	557.8
COFIELD LANDING, Trimble Co., Ky.	LEFT BANK	558.0
256. CLIFTY CREEK LIGHT No. 1. Color White.	RIGHT BANK	558.5
PANTHER CREEK	RIGHT BANK	559.2
HAPPY HOLLOW	RIGHT BANK	559.5
MANOVER LANDING, Jefferson Co., Ind.	RIGHT BANK	560.0
255. COOPER BAR LIGHT No. 3. Color White.	RIGHT BANK	560.4
CHAIN MILL CREEK	RIGHT BANK	560.5
COOPER LANDING, Trimble Co., Ky.	LEFT BANK	560.8
254. COOPER BAR LIGHT No. 1. Color White.	RIGHT BANK	561.6
COOPERS RUN and BAR	LEFT BANK	561.6
BIG SIX LANDING, Jefferson Co., Ind.	RIGHT BANK	561.6
GILMORE CREEK	LEFT BANK	561.9
LUCKETTS LANDING, Trimble Co., Ky.	LEFT BANK	563.0
BURKHARD LANDING, Trimble Co., Ky.	LEFT BANK	563.2
SPRING CREEK LANDING, Trimble Co., Ky.	LEFT BANK	563.2
SPRING CREEK	LEFT BANK	563.2
FLOW HANDLE POINT	RIGHT BANK	563.2
253. SPRING CREEK LIGHT. Color White.	LEFT BANK	563.3
MORELAND CREEK and LANDING	LEFT BANK	563.8
NEW LONDON LANDING, Trimble Co., Ky.	LEFT BANK	564.3
NEW LONDON, Ind.	RIGHT BANK	564.3
PAYNE HOLLOW	LEFT BANK	564.5
STEVENSON LANDING, Trimble Co., Ky.	LEFT BANK	564.7
FREESTONS HOLLOW and LANDING, Trimble Co., Ky.	LEFT BANK	565.2
MARTILL LANDING, Jefferson Co., Ind.	RIGHT BANK	565.3
WICKLIFFE LANDING, Trimble Co., Ky.	LEFT BANK	566.3
VAIER LANDING, Trimble Co., Ky.	LEFT BANK	566.7
SALUDA BAR and LANDING, Ind.	RIGHT BANK	566.7
BIG SALUDA CREEK	RIGHT BANK	566.7
LITTLE SALUDA CREEK	RIGHT BANK	566.8
252. KING LANDING LIGHT. Color White.	RIGHT BANK	567.4
WILLIS LANDING, Trimble Co., Ky.	LEFT BANK	567.5
MARBLE HILL LANDING, Jefferson Co., Ind.	RIGHT BANK	567.7

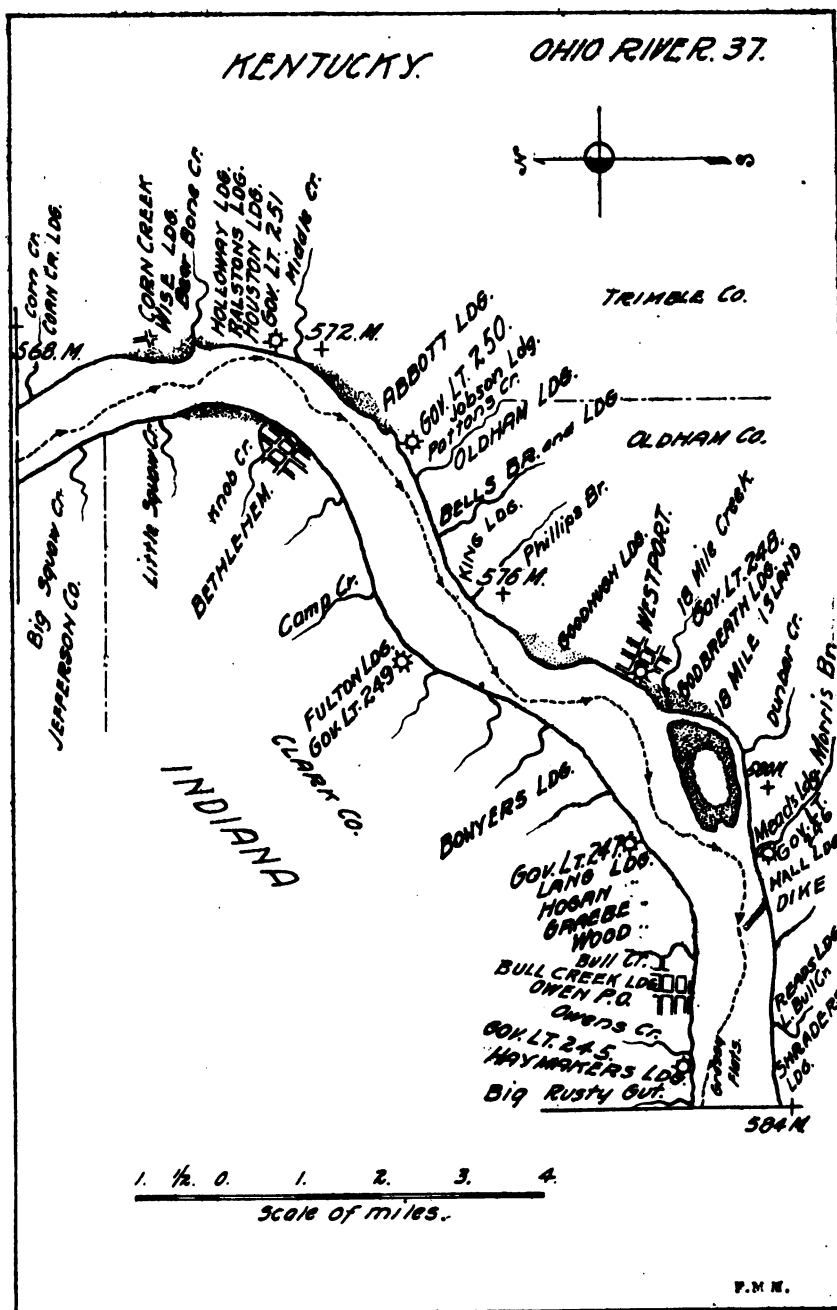


Chart No. 37.

Miles below
Pittsburgh.

CORN CREEK and LANDING	LEFT BANK	568.2
HIG SQUAW CREEK	RIGHT BANK	568.4
LITTLE SQUAW CREEK	RIGHT BANK	569.3
WISE LANDING, Corn Creek post office, Trimble Co., Ky	LEFT BANK	570.0
BEAR HONE CREEK	LEFT BANK	570.3
HOLLOWAY LANDING, Trimble Co., Ky	LEFT BANK	570.3
RAISTONS LANDING, Trimble Co., Ky	LEFT BANK	571.3
HOUSTON LANDING, Trimble Co., Ky	LEFT BANK	571.4
251. BETHLEHEM BEACH LIGHT. Color White	LEFT BANK	571.4
MIDDLE CREEK	LEFT BANK	571.6
KNOB CREEK	RIGHT BANK	571.6
BETHLEHEM, Clark Co., Ind. (182)	RIGHT BANK	572.1
ABBOTT LANDING, Trimble Co., Ky	LEFT BANK	572.1
250. JOHNSON LANDING LIGHT. Color White	LEFT BANK	572.6
JOHNSON LANDING, Trimble Co., Ky	LEFT BANK	572.6
FATIONS CREEK, County line	LEFT BANK	572.8
OLDHAM LANDING, Oldham Co., Ky. (85)	LEFT BANK	572.9
Formerly Oldhamsburg. Wagon road via Westport, 12 miles to La Grange, county seat, on the L. & N. R. R.		
BELLS LANDING, Oldham Co., Ky	LEFT BANK	574.5
BELLS BRANCH	LEFT BANK	574.6
KING LANDING, Oldham Co., Ky	LEFT BANK	575.5
PHILLIPS BRANCH	LEFT BANK	575.5
CAMP CREEK	RIGHT BANK	575.8
FULTON LANDING, Clark Co., Ind	RIGHT BANK	576.0
249. FULTON LIGHT. Color White	RIGHT BANK	576.0
GOODRUGH LANDING, Ky	LEFT BANK	576.2
WESTPORT, Oldham Co., Ky. (150)	LEFT BANK	577.3
Former county seat of Oldham County. Wagon road, 8 miles to La Grange, on L. & N. R. R.		
248. WESTPORT LIGHT. Color White	LEFT BANK	577.9
BOWYERS LANDING, Clark Co., Ind	RIGHT BANK	577.9
EIGHTEEN MILE CREEK	LEFT BANK	578.2
GODBREATH LANDING, Oldham Co., Ky	LEFT BANK	578.6
HEAD OF EIGHTEEN MILE ISLAND	LEFT OF CHANNEL	578.8
Channel to right of island. Good water with Louisville Dam up. Least water, open river, 5.3 feet, near foot of island.		
DUNBAR CREEK (behind island)	LEFT BANK	579.5
247. EIGHTEEN MILE ISLAND DAYMARK No. 1. Color White	RIGHT BANK	579.9
LANG LANDING, Clark Co., Ind	RIGHT BANK	580.1
HOGAN LANDING, Clark Co., Ind	RIGHT BANK	580.2
FOOT OF EIGHTEEN MILE ISLAND	LEFT OF CHANNEL	580.4
MORRIS BRANCH	LEFT BANK	580.9
246. EIGHTEEN MILE ISLAND LIGHT No. 2. Color White	LEFT BANK	580.9
GRAEBE LANDING, Clark Co., Ind	RIGHT BANK	581.3
GRASSY FLAT DIKE	LEFT BANK	581.4
Dike shows about 1,000 feet long, much leveled down. Channel to right. Good water with Louisville Dam up. Least water, open river, 5.4 feet, near foot of flats.		
WOOD LANDING, Clark Co., Ind	RIGHT BANK	581.7
HALL LANDING, Oldham Co., Ky	LEFT BANK	582.1
BULL CREEK LANDING (Owen post office), Clark Co., Ind	RIGHT BANK	582.2
Formerly known as a Herculanum.		
READS LANDING, Oldham Co., Ky	LEFT BANK	582.3
LITTLE BULL CREEK	LEFT BANK	582.6
OWENS CREEK	RIGHT BANK	582.8
SHRADERS LANDING, Oldham Co., Ky	LEFT BANK	582.8
HAYMAKERS LANDING, Clark Co., Ind	RIGHT BANK	582.6
245. GRASSY FLATS LIGHT No. 1. Color White	RIGHT BANK	582.6
HIG BUSTY GUT	RIGHT BANK	583.9

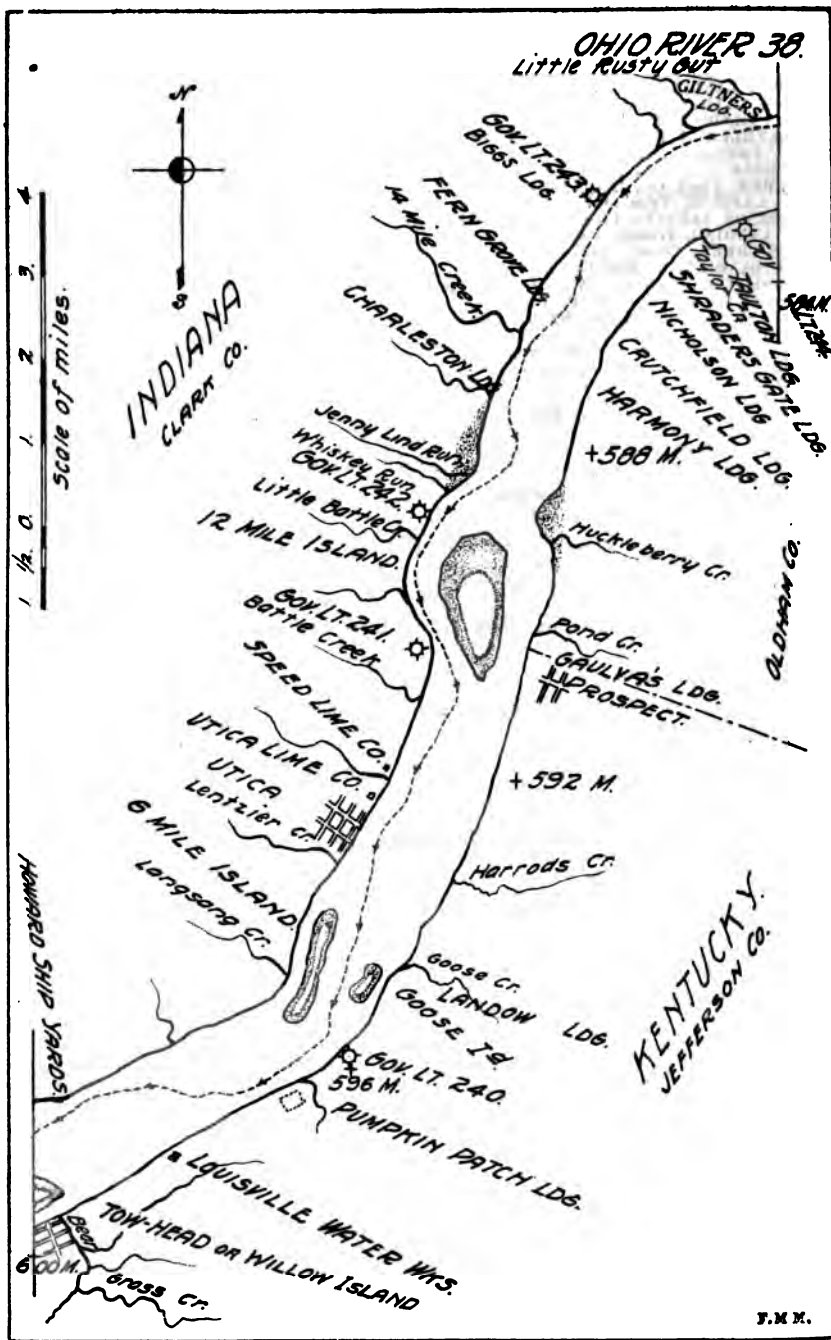


Chart No. 38.

Miles below
Pittsburgh.

344. GRASSY FLATS DAYMARK No. 2. Color White.	LEFT BANK	584.2
LITTLE MUSTY CUT	RIGHT BANK	584.2
GHITTEER'S LANDING, Clark Co., Ind.	RIGHT BANK	584.2
TAULTON LANDING, Oldham Co., Ky.	LEFT BANK	584.8
TAYLOR CREEK	LEFT BANK	584.9
345. BEGGS LANDING LIGHT. Color White.	RIGHT BANK	584.9
SHEARERS GATE LANDING, Oldham Co., Ky.	LEFT BANK	584.5
NEEDOLSON LANDING, Oldham Co., Ky.	LEFT BANK	584.9
CRUTCHFIELD LANDING, Oldham Co., Ky.	LEFT BANK	584.5
PEEN GROVE LANDING, Clark Co., Ind.	RIGHT BANK	584.6
FOURTEEN MILE CREEK	RIGHT BANK	584.9
HARMONY LANDING, Oldham Co., Ky.	LEFT BANK	587.1
CHARLESTON LANDING, Clark Co., Ind.	RIGHT BANK	587.6
JENNY LIND RUN	RIGHT BANK	588.5
HUCKLEBERRY CREEK	LEFT BANK	588.6
WHISKEY RUN	RIGHT BANK	588.9
342. TWELVE MILE ISLAND LIGHT No. 2. Color White.	RIGHT BANK	588.3
HEAD OF TWELVE MILE ISLAND	LEFT OF CHANNEL	588.3
Channel to right of island. Good water with Louisville Dam up.		
LITTLE BATTLE CREEK	RIGHT BANK	589.4
POND CREEK	LEFT BANK	590.2
241. TWELVE MILE ISLAND LIGHT No. 1. Color White.	RIGHT BANK	590.4
GAULVA'S LANDING (Prospect post office), Jefferson Co., Ky.	LEFT BANK	590.4
Terminus of a branch line L. & N. R. R. to Louisville, Ky.		
FOOT OF TWELVE MILE ISLAND	LEFT OF CHANNEL	591.3
BATTLE CREEK	RIGHT BANK	591.5
SPEED LIME CO.'S PLANT	RIGHT BANK	592.5
UTICA LIME CO.'S PLANT	RIGHT BANK	592.7
UTICA, Clark Co., Ind. (426)	RIGHT BANK	592.2
Principal industries: Manufacturing of building lime. Wagon road 6 miles to Jeffersonville, Ind.		
HARRODS CREEK	LEFT BANK	592.3
LENTZIER CREEK	RIGHT BANK	592.7
HEAD OF SIX MILE ISLAND	RIGHT OF CHANNEL	594.3
Channel to left of island. Good water with Louisville Dam up.		
GOOSE CREEK	LEFT BANK	594.4
GOOSE ISLAND near	LEFT BANK	594.8
Channel between Goose and Six Mile Island; good water.		
LANDOW LANDING, Jefferson Co., Ky.	LEFT BANK	594.8
LANGSANG CREEK	RIGHT BANK	595.2
240. SIX MILE ISLAND LIGHT. Color White.	LEFT BANK	596.0
PUMPKIN PATCH COAL LANDING, opposite foot of island	LEFT BANK	596.6
LOUISVILLE WATERWORKS	LEFT BANK	598.1
HOWARDS' SHIPYARDS, upper Jeffersonville	RIGHT BANK	599.4
WILLOW ISLAND, or TOWHEAD	LEFT OF CHANNEL	599.6
Channel to right of island.		
BEAR GRASS CREEK	LEFT BANK	599.6
Discharging into back channel, behind island. The creek's mouth has been diverted in recent years.		

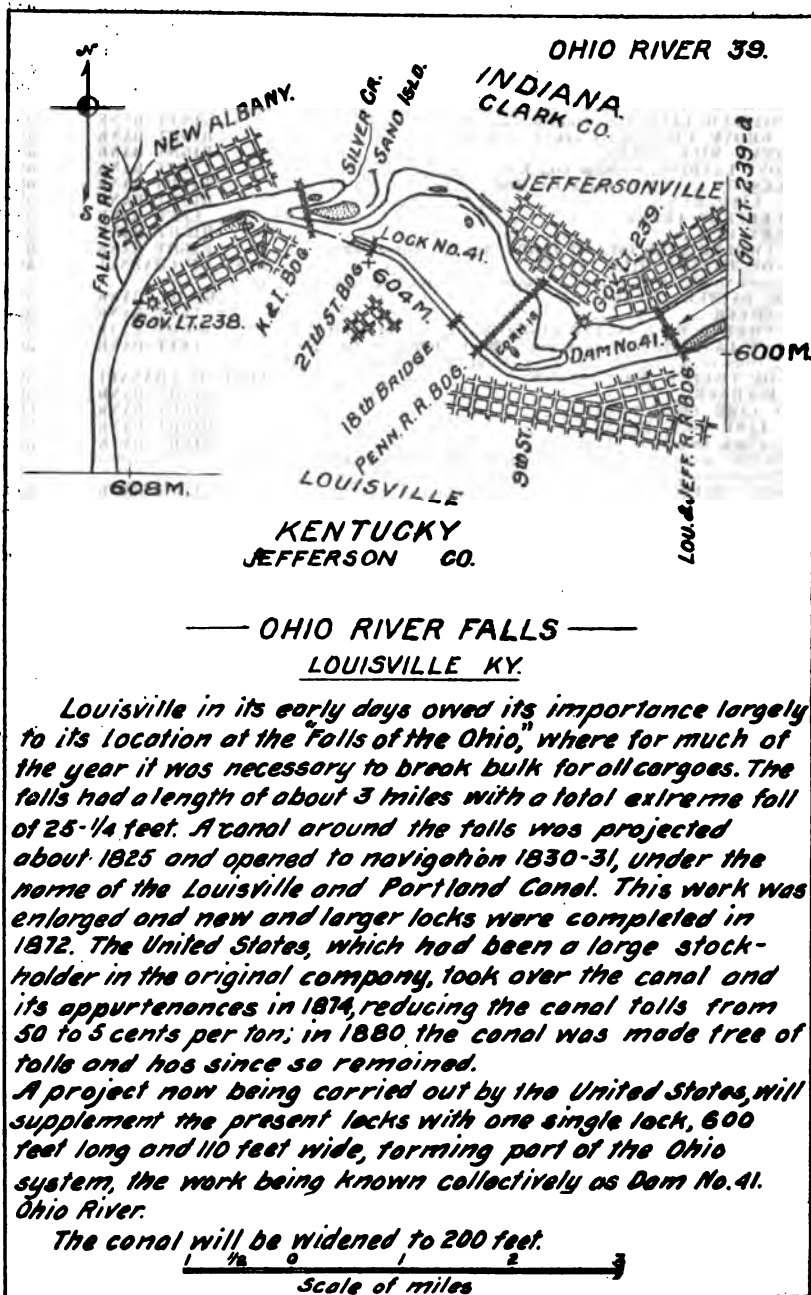


Chart No. 39.

Miles below
Pittsburgh.

JEFFERSONVILLE, Clark Co., Ind. (10,412) (Ferry landing) -----	RIGHT BANK	600.4
Principal industries: Shipbuilding, banking, and general merchandise. The United States maintains a quartermaster depot here and the southern penitentiary of Indiana is also situated in Jeffersonville. Railroads: P. C. C. & St. L., B. & O. S. W. (from North Vernon), and C. C. C. & St. L. Ferry to Louisville, Ky.		
LOUISVILLE AND JEFFERSONVILLE BRIDGE—C. C. C. & St. L. R. R. -----		600.5
Channel span, 538 feet; height, 92.8 feet.		
239a. OHIO FALLS DAYMARK. Color White -----		600.5
(Shown from Louisville and Jeffersonville Bridge.)		
LOUISVILLE, Jefferson Co., Ky. (223,928). Public Landing -----	LEFT BANK	601.0
The metropolis of Kentucky; widely varied business interests in manufacturing, banking, insurance, tobacco, and general merchandise. Railroads: L. & N., I. C., Southern, B. & O. S. W., P. C. C. & St. L., C. C. C. & St. L., C. & O., L. M. A. & C., L. H. & St. L. Ferries to Jeffersonville and New Albany, Ind.		
239. OHIO FALLS LIGHT. Color Red -----	RIGHT BANK	601.5
DAM No. 41, OHIO RIVER. Part movable and part fixed. Length, 5,247 feet.		
INDIANA CHUTE CHANNEL.		
Length 2½ miles, width 400 feet. Navigable by heavy-draft boats at stages of 11.5 feet or more upper canal gage.		
ENTRANCE TO LOUISVILLE AND PORTLAND CANAL -----	LEFT BANK	601.9
Length, including locks and lower entrance, 2½ miles. Width at upper entrance, 400 feet, reducing to 86.5 feet throughout the canal.		
N. B.—Permit to enter canal must be obtained from the canal office at head of canal, Louisville, Ky.		
FOOT OF NINTH STREET, LOUISVILLE, KY -----	LEFT BANK	602.0
OHIO FALLS BRIDGE -----		602.5
P. C. C. & St. L. R. R. Channel span, 380 feet; height, 96.5 feet.		
EIGHTEENTH STREET BRIDGE over canal -----		602.8
TWENTY-SEVENTH STREET BRIDGE over canal -----		604.0
LOUISVILLE AND PORTLAND CANAL LOCKS. —Heads of locks. Locks, now in use, 2, each 80 feet wide and 350 feet long. Depth on lower miter sill at extreme low water, 4 feet. A new lock 110 feet wide and 600 feet long now under construction. This lock will supplement those now in use and is designated as No. 41 of the Ohio River series.		
Portland, at the foot of canal on left bank, was laid out as a separate town in 1814, but is now a part of Louisville.		
KENTUCKY and INDIANA BRIDGE -----		604.5
Channel span, 600 feet; height, 108 feet.		
PORTLAND DIKE, extending from left bank, head -----		604.7
Keep over toward the right; the channel crosses toward right (Indiana) shore.		
NEW ALBANY, county seat of Floyd Co., Ind. (20,629) -----	RIGHT BANK	604.9
Principal industries: Rolling mills, saw and veneer mills, boat building, iron, steel, and wood, and light manufacturing; fertilizer plant; also banking and general merchandising. Railroads: P. C. C. & St. L.; B. & O. S. W.; Southern (L. & St. L. Div.); Chicago, Ind. & Louisville. Electric lines both local and to Louisville via K. and I. Bridge.		
LOOSE STONE DIKE -----	LEFT BANK	606.1
LOOSE STONE DIKE -----	LEFT BANK	606.2
FALLING RUN; high rock bar at mouth and below -----	RIGHT BANK	606.2
238. FALLING RUN LIGHT. Color White -----	LEFT BANK	606.5
LOOSE STONE DIKE -----	LEFT BANK	606.4

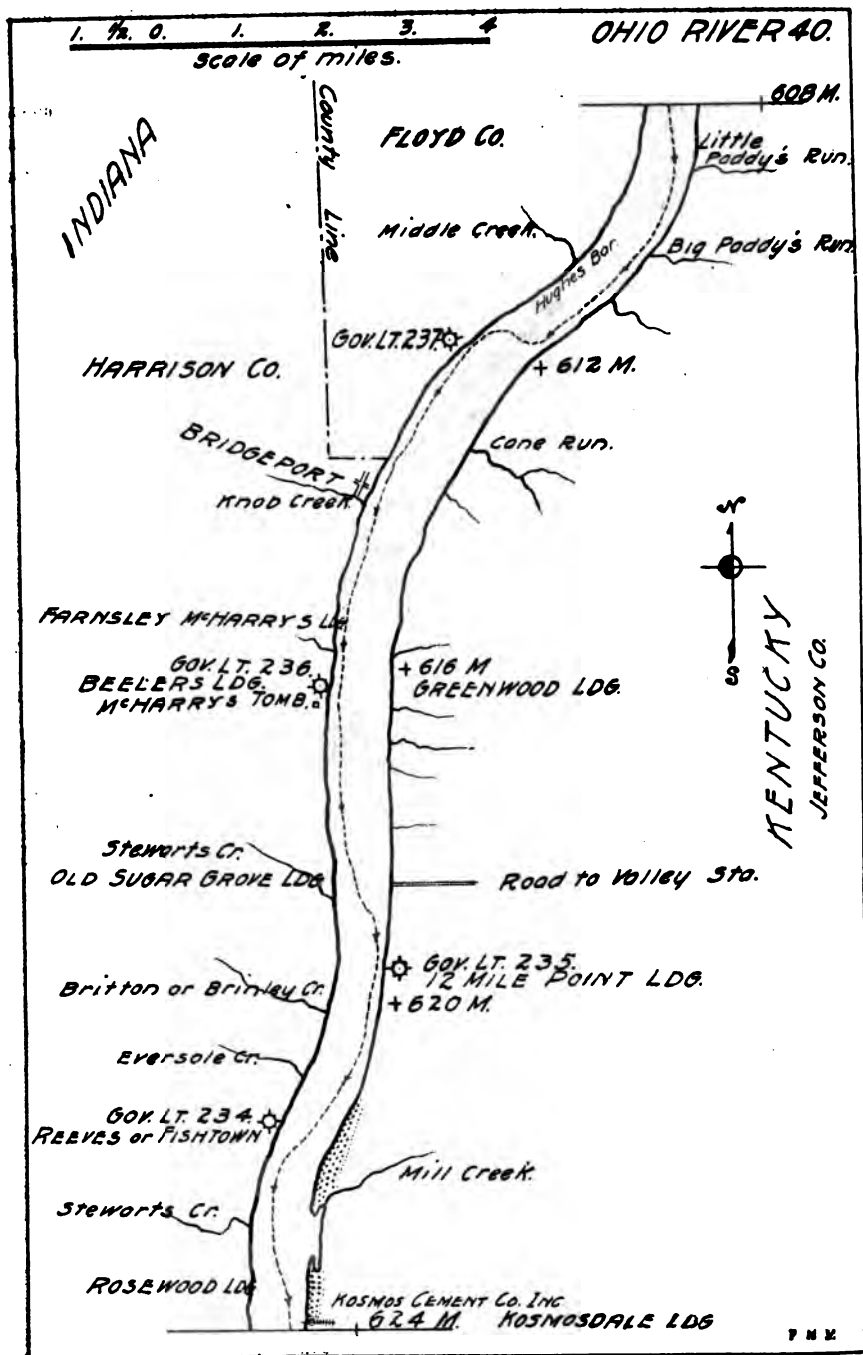


Chart No. 40:

Miles below
Pittsburgh.

LITTLE PADDYS RUN	LEFT BANK	608.9
BIG PADDYS RUN	LEFT BANK	610.0
MIDDLE CREEK	RIGHT BANK	610.8
237. HUGHES BAR LIGHT. Color White	RIGHT BANK	612.3
Channel makes sharp crossing from left to right bank with least depth on bar of 5.2 feet.		
CANE RUN	LEFT BANK	612.3
COUNTY LINE (Floyd and Harrison, Ind.)	RIGHT BANK	612.8
BRIDGEPORT, Harrison Co., Ind.	RIGHT BANK	614.2
KNOB CREEK	RIGHT BANK	614.8
FARNSLEY, McHarrys Landing, Ind.	RIGHT BANK	615.7
BEELEER LANDING, Ind.	RIGHT BANK	616.1
GREENWOOD LANDING, Ky.	LEFT BANK	616.2
236. BEELEER LANDING LIGHT. Color White	RIGHT BANK	616.2
McHARRY'S TOMB, on the bluff	RIGHT BANK	616.8
OLD SUGAR GROVE LANDING, Harrison Co.	RIGHT BANK	618.4
ROAD TO VALLEY STATION (L. H. & St. L. E. R.)	LEFT BANK	618.5
STEWARTS CREEK (upper)	RIGHT BANK	618.7
235. TWELVE MILE POINT LIGHT. Color White	LEFT BANK	619.6
TWELVE MILE POINT LANDING	LEFT BANK	619.7
BRITTON OR BRINLEY CREEK	RIGHT BANK	620.2
EYERSOLE CREEK	RIGHT BANK	621.1
234. FISHTOWN LIGHT. Color White	RIGHT BANK	621.8
FISHTOWN or REEVES LANDING, Harrison Co., Ind.	RIGHT BANK	621.8
MILL CREEK	LEFT BANK	622.4
STEWARTS CREEK (lower)	RIGHT BANK	622.7
ROSEWOOD LANDING, Harrison Co., Ind.	RIGHT BANK	623.6
KOSMOSDALE LANDING	LEFT BANK	623.9
The site of the Kosmos Portland Cement Co. is at Kosmosdale, Jefferson Co., Ky. (75).		
KOSMOS CEMENT CO. INCLINE	LEFT BANK	623.9

OHIO RIVER 41.

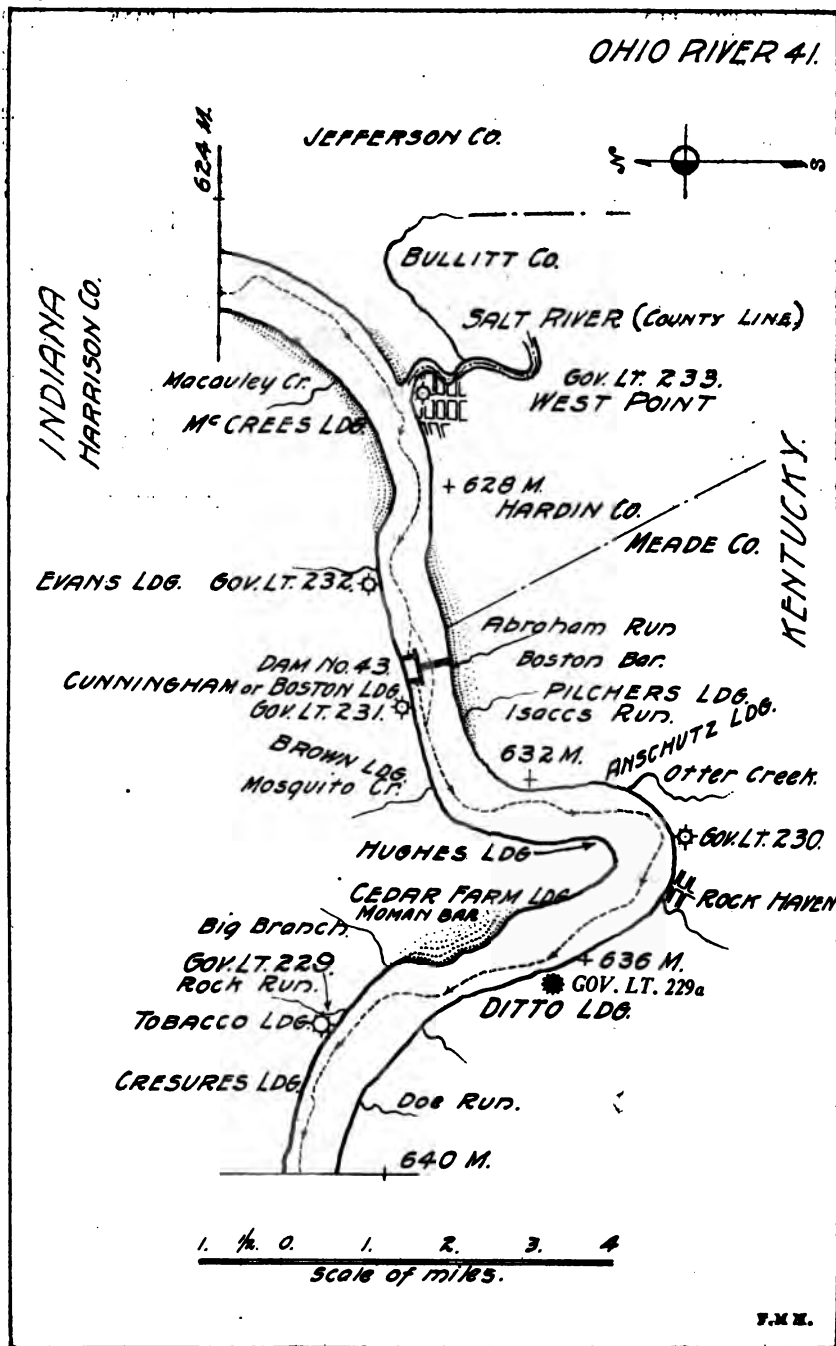


Chart No. 41.

Miles below
Pittsburgh.

MACAULEY CREEK	RIGHT BANK	626.2
McCREES LANDING, Harrison Co.	RIGHT BANK	626.6
SALT RIVER	LEFT BANK	626.6
Birdstown is situated on Beech Fork of Salt River. The river is the boundary line between Bullitt and Hardin Counties, Ky.		
WEST POINT, Hardin Co., Ky. (782)	LEFT BANK	626.9
At mouth of Salt River.		
233. WEST POINT LIGHT. Color White.	LEFT BANK	626.9
232. EVANS LANDING LIGHT. Color White.	RIGHT BANK	629.0
Evans Landing, Harrison County, Ind.		
COUNTY LINE, Hardin and Meade Cos., Ky.	LEFT BANK	629.7
OHIO RIVER DAM No. 44		630.2
Under construction, 1920. When completed, lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 200 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 1, p. 25.		
BOSTON DAM, foot.	LEFT BANK	630.3
ABRAHAM RUN	LEFT BANK	630.3
BOSTON OR CUNNINGHAM LANDING, Harrison Co., Ind.	RIGHT BANK	630.4
PILCHERS LANDING, Meade Co., Ky.	LEFT BANK	630.5
ISAACS RUN	LEFT BANK	630.9
231. MOSQUITO CREEK LIGHT. Color White.	RIGHT BANK	631.3
BROWN LANDING, Harrison Co., Ind.	RIGHT BANK	631.4
MOSQUITO CREEK	RIGHT BANK	631.4
ANSCHUTZ LANDING, Meade Co., Ky.	LEFT BANK	632.2
OTTER CREEK	LEFT BANK	632.2
HUGHES LANDING, Harrison Co., Ind.	RIGHT BANK	632.2
230. ROCK HAVEN LIGHT No. 4. Color White.	LEFT BANK	634.0
ROCK HAVEN, Meade Co., Ky. (40)	LEFT BANK	634.7
CEDAR FARM LANDING, Harrison Co., Ind.	RIGHT BANK	636.0
NOMAN BAY	RIGHT BANK	636.2
229-a. ROCK HAVEN LIGHT No. 2. Color White.	LEFT BANK	636.5
DITTO LANDING, Meade Co., Ky.	LEFT BANK	637.5
BIG BRANCH	RIGHT BANK	637.5
ROCK RUN	RIGHT BANK	637.6
229. TOBACCO BEND LIGHT No. 3. Color White.	RIGHT BANK	638.5
TOBACCO LANDING, Harrison Co., Ind.	RIGHT BANK	638.5
CRESURES LANDING, Harrison Co., Ind.	RIGHT BANK	639.1
DOE RUN	LEFT BANK	639.1

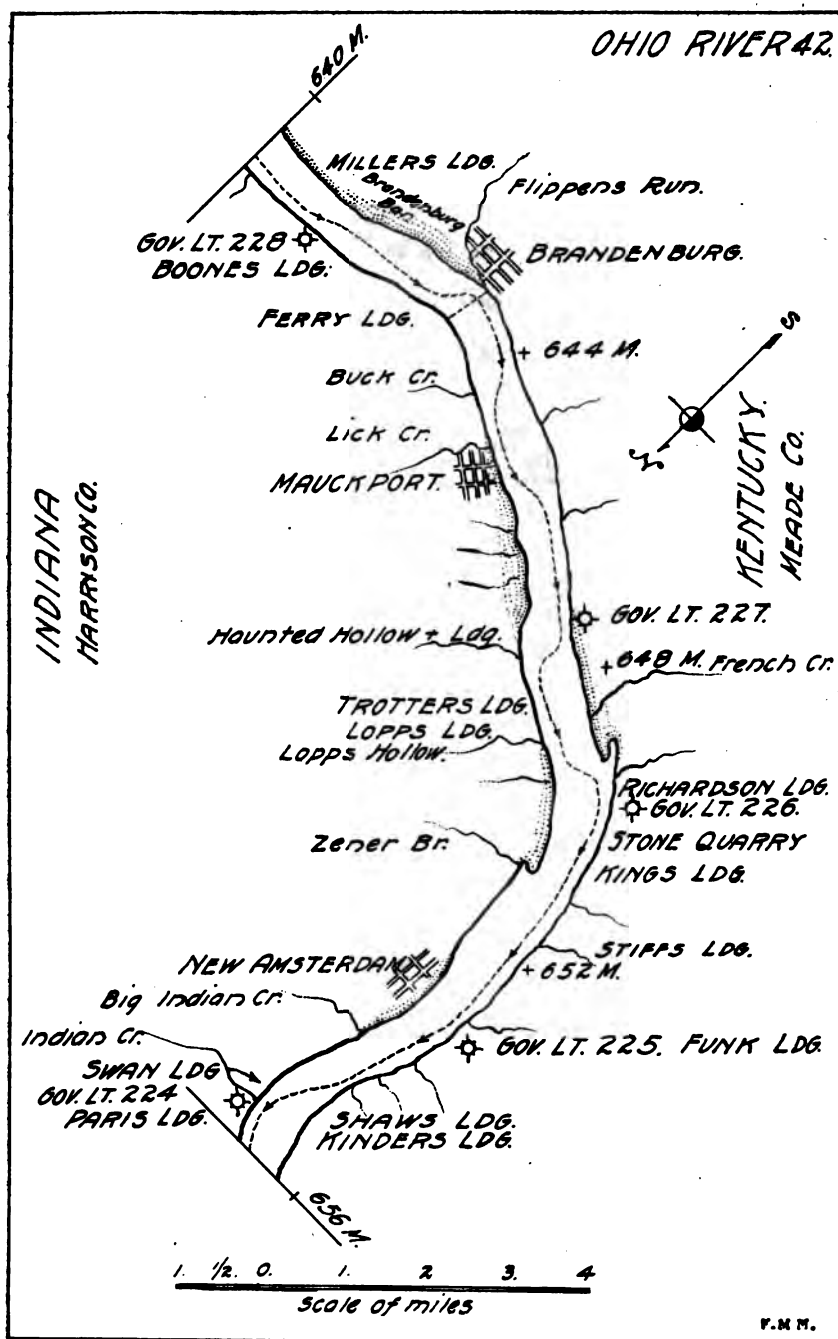


Chart No. 42.

Miles below
Pittsburgh.

MILLERS LANDING, Meade Co., Ky.	LEFT BANK	640.8
228. TOBACCO BEND LIGHT No. 1, Color White.	RIGHT BANK	641.1
BOONES LANDING, Harrison Co., Ind.	RIGHT BANK	641.6
Brandenburg Bar on left of channel.		
FERRY LANDING, Harrison Co., Ind.	RIGHT BANK	642.9
FLIPPENS RUN	LEFT BANK	642.9
BRANDENBURG, county seat of Meade Co., Ky. (488)	LEFT BANK	643.0
Railroad: Louisville, Henderson & St. Louis R. R. Ferry to Indiana shore.		
227-a. BRANDENBURG LIGHT. Color White.	LEFT BANK	643.0
BUCK CREEK	RIGHT BANK	644.4
WICK CREEK	RIGHT BANK	645.1
MAUCKPORT, Harrison Co., Ind. (379)	RIGHT BANK	645.2
Channel crosses toward Kentucky shore. Wagon road 14 miles to Corydon, the old capital of Indiana.		
227. HAUNTED HOLLOW LIGHT. Color White.	LEFT BANK	647.4
HAUNTED HOLLOW and LANDING, Harrison Co., Ind.	RIGHT BANK	647.6
FRENCH CREEK	LEFT BANK	648.4
TROTTERS LANDING, Harrison Co., Ind.	RIGHT BANK	648.4
Channel crosses toward Kentucky shore.		
LOPPS LANDING, Harrison Co., Ind.	RIGHT BANK	648.8
LOPPS HOLLOW	RIGHT BANK	648.9
RICHARDSON LANDING, Meade Co., Ky.	LEFT BANK	649.7
228. RICHARDSON LANDING LIGHT. Color White.	LEFT BANK	649.8
Stone quarry for Kosmos Portland Cement Co.		
KINGS LANDING, Meade Co., Ky.	LEFT BANK	650.5
ZENER BRANCH	RIGHT BANK	650.8
STIFFS LANDING, Meade Co., Ky.	LEFT BANK	651.7
NEW AMSTERDAM, Harrison Co., Ind. (194)	RIGHT BANK	652.1
225. FUNK LANDING LIGHT. Color White.	LEFT BANK	652.1
Funk Landing, Meade Co., Ky.		
BIG INDIAN CREEK	RIGHT BANK	654.2
SHAW'S LANDING, Meade Co., Ky.	LEFT BANK	655.0
SWAN LANDING, Harrison Co., Ind.	RIGHT BANK	655.1
KINDERS LANDING, Meade Co., Ky.	LEFT BANK	655.2
INDIAN CREEK	RIGHT BANK	655.4
224. PARIS LANDING LIGHT. Color White.	RIGHT BANK	655.5
Paris Landing, Harrison County, Ind.		

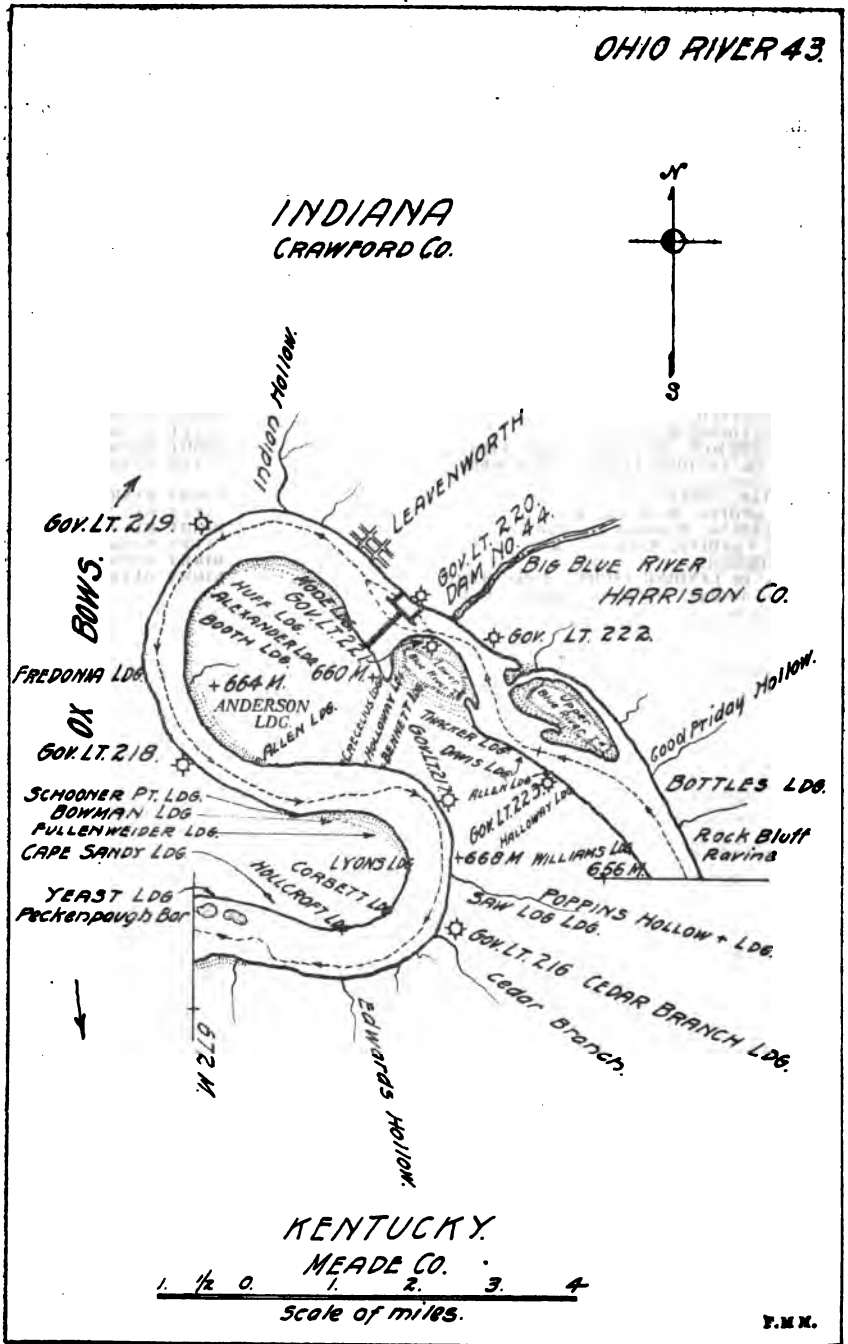


Chart No. 43.

Miles below
Pittsburgh.

ROCK BLUFF RAVIDE	RIGHT BANK	656.5
WILLIAMS LANDING, Meade Co., Ky	LEFT BANK	656.6
BOTTLE LANDING, Harrison Co., Ind	RIGHT BANK	656.9
GOOD FRIDAY HOLLOW	RIGHT BANK	657.0
Channel crosses toward Kentucky shore.		
UPPER BLUE RIVER ISLAND, head of bar	RIGHT OF CHANNEL	657.2
Channel runs to left of bar.		
HOLLOWAY LANDING, Meade Co., Ky	LEFT BANK	657.4
223. BIG BLUE RIVER LIGHT. Color White	LEFT BANK	657.7
ALLEN LANDING, Meade Co., Ky	LEFT BANK	657.8
DAVIS LANDING, Meade Co., Ky	LEFT BANK	658.2
TRACKER LANDING, Meade Co., Ky	LEFT BANK	658.4
Channel crosses toward Indiana shore.		
LOWER BLUE RIVER ISLAND, head of bar	LEFT OF CHANNEL	658.7
UPPER BLUE RIVER ISLAND, foot of island	RIGHT OF CHANNEL	658.8
222. BLUE RIVER ISLAND LIGHT No. 3. Color White	RIGHT BANK	659.2
Channel crosses toward next light on lower island.		
221. BLUE RIVER ISLAND LIGHT No. 2, on island. Color White	LEFT OF CHANNEL	659.8
BIG BLUE RIVER, county line Harrison-Crawford	RIGHT BANK	659.9
LOWER BLUE RIVER ISLAND, foot	LEFT OF CHANNEL	660.1
OHIO RIVER DAM No. 44		660.5
Under construction 1920. When completed, lock on right bank; length, 300 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
220. BLUE RIVER ISLAND DAYMARK No. 1. Color White	RIGHT BANK	660.3
MODE LANDING, Meade Co., Ky	LEFT BANK	660.7
LEAVENWORTH, Crawford Co., Ind. (690)	RIGHT BANK	661.0
Principal interests: Banking, general trading and boat building. Connection by wagon road with Marengo Station, Southern R. R. (Lou. and St. L. Div.), about 14 miles.		
INDIAN HOLLOW	RIGHT BANK	661.8
219. INDIAN HOLLOW LIGHT. Color White	RIGHT BANK	662.3
HUFF LANDING, Meade Co., Ky	LEFT BANK	662.3
ALEXANDER LANDING, Meade Co., Ky	LEFT BANK	662.5
BOOTH LANDING, Meade Co., Ky	LEFT BANK	662.9
FREDONIA LANDING, Crawford Co., Ind. (66)	RIGHT BANK	663.6
ANDERSON LANDING, Meade Co., Ky	LEFT BANK	664.2
218. FREDONIA LIGHT. Color White	RIGHT BANK	664.4
ALLEN LANDING, Meade Co., Ky	LEFT BANK	665.0
SCHOONER POINT LANDING, Crawford Co., Ind	RIGHT BANK	665.9
CRECELIOUS LANDING, Meade Co., Ky	LEFT BANK	665.9
HOLLOWAY LANDING, Meade Co., Ky	LEFT BANK	666.2
BOWMAN LANDING, Crawford Co., Ind	RIGHT BANK	666.2
BENNETT LANDING, Meade Co., Ky	LEFT BANK	666.4
FULLENWEIDER LANDING, Crawford Co., Ind	RIGHT BANK	666.8
217. SCHOONER POINT LIGHT. Color White	LEFT BANK	667.3
LYONS LANDING, Crawford Co., Ind	RIGHT BANK	668.2
POPPINS HOLLOW and LANDING, Meade Co., Ky	LEFT BANK	668.2
SAW LOG LANDING, Meade Co., Ky	LEFT BANK	668.4
216. CEDAR BRANCH LIGHT. Color White	LEFT BANK	668.8
CEDAR BRANCH LANDING, Meade Co., Ky	LEFT BANK	668.8
CEDAR BRANCH (creek)	LEFT BANK	668.9
CORBETT LANDING, Crawford Co., Ind	RIGHT BANK	669.3
HOLCROFT LANDING, Crawford Co., Ind	RIGHT BANK	669.9
EDWARDS HOLLOW	LEFT BANK	670.2
CAPE SANDY LANDING, Crawford Co., Ind. (40)	RIGHT BANK	671.0
PECKENPAUGH BAR—at low water sometimes not more than 2 feet	RIGHT OF CHANNEL	671.0
YEAST LANDING, Crawford, Ind	RIGHT BANK	671.8

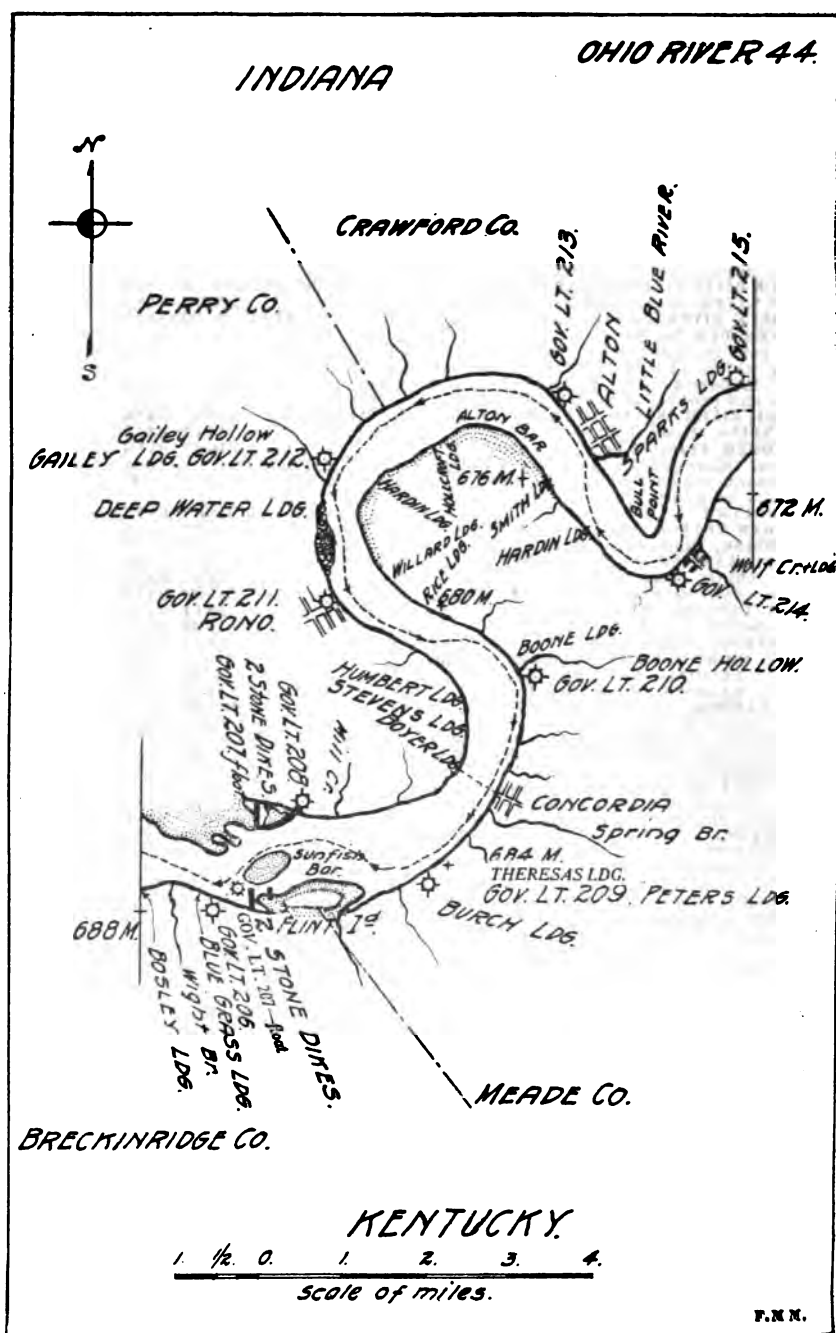


Chart No. 44.

Miles below
Pittsburgh.

215. PECKENPAUGH LIGHT. Color White	RIGHT BANK	672.4
Between this and Bull Point, channel crosses toward Kentucky shore.		
WOLF CREEK LANDING, Meade Co., Ky. (778)	LEFT BANK	673.4
214. WOLF CREEK LIGHT. Color White	LEFT BANK	673.9
BULL POINT	RIGHT BANK	674.0
HARDIN LANDING, Meade Co., Ky.	LEFT BANK	674.9
SPARKS LANDING, Crawford Co., Ind.	RIGHT BANK	675.4
LITTLE BLUE RIVER	RIGHT BANK	675.5
SMITH LANDING, Meade Co., Ky.	LEFT BANK	675.8
ALTON BAR	LEFT BANK	675.8
ALTON, Crawford Co., Ind. (161)	RIGHT BANK	675.8
213. ALTON BAR LIGHT. Color White	RIGHT BANK	676.2
HOLLCROFT LANDING, Meade Co., Ky.	LEFT BANK	677.2
COUNTY LINE, Crawford-Perry, Ind.	RIGHT BANK	677.5
HARDIN LANDING, Meade Co., Ky.	LEFT BANK	678.0
212. GAILLEY HOLLOW LIGHT. Color White	RIGHT BANK	678.1
GAILLEY LANDING, Perry Co., Ind.	RIGHT BANK	678.1
DEEPWATER LANDING, Perry Co., Ind.	RIGHT BANK	678.7
211. BONO LIGHT. Color White	RIGHT BANK	679.3
BONO LANDING, Perry Co., Ind.	RIGHT BANK	679.3
WILLARD LANDING, Meade Co., Ky.	LEFT BANK	679.5
RICE LANDING, Meade Co., Ky.	LEFT BANK	679.9
BOONE LANDING, Meade Co., Ky.	LEFT BANK	680.9
210. BOONE HOLLOW LIGHT. Color White	LEFT BANK	681.3
HUMBERT LANDING, Perry Co., Ind.	RIGHT BANK	681.6
STEVENS LANDING, Perry Co., Ind.	RIGHT BANK	682.3
CONCORDIA, Meade Co., Ky. (100)	LEFT BANK	682.9
BOYER LANDING, Perry Co., Ind.	RIGHT BANK	683.0
SPRING BRANCH	LEFT BANK	683.1
THERESAS LANDING, Meade Co., Ky.	LEFT BANK	683.9
209. PETERS LANDING LIGHT. Color White	LEFT BANK	684.3
Channel crosses toward Indiana shore, passing to right of island and Sunfish Bar.		
BURCH LANDING	LEFT BANK	684.6
FLINT ISLAND, head	LEFT OF CHANNEL	685.2
MILL CREEK	RIGHT BANK	685.9
COUNTY LINE, Meade-Breckinridge	LEFT BANK	686.1
208. FLINT ISLAND LIGHT No. 1. Color White	RIGHT BANK	686.1
A curved dike extends outward and downstream from this point for a distance of 3,335 feet. A short stone dike (160 feet) at the end of this timber dike.		
207. FLINT ISLAND FLOAT LIGHT No. 4, end of short dike. Color Red	LEFT OF CHANNEL	686.7
N. B.—A stone dike extends out toward channel from foot of island, and another from Kentucky shore below island. Least water found near upper end Sunfish Bar, 2.9 feet. Channel crosses toward Light No. 206.		
206. FLINT ISLAND LIGHT No. 2. Color White	LEFT BANK	687.0
BLUE GRASS LANDING, Breckinridge Co., Ky.	LEFT BANK	687.7
WIGHT BRANCH	LEFT BANK	687.7
BOSLEY LANDING, Breckinridge Co., Ky.	LEFT BANK	688.8
Channel crosses toward Indiana shore to Light No. 205.		

OHIO RIVER 45.

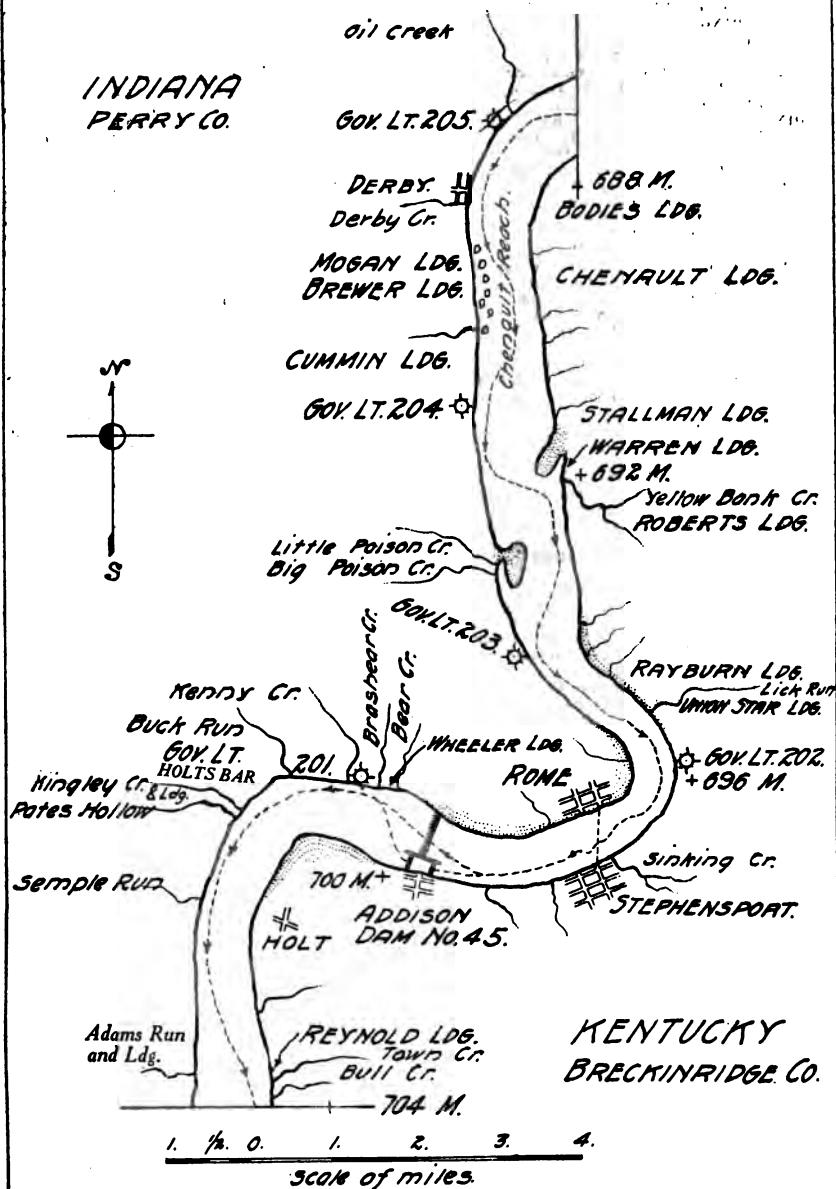


Chart No. 45.

Miles below
Pittsburgh.

OIL CREEK	RIGHT BANK	688.2
#45. OIL CREEK LIGHT. Color White	RIGHT BANK	688.2
BODIES LANDING, Breckinridge Co., Ky	LEFT BANK	688.7
DERBY (200), Perry Co., Ind.	RIGHT BANK	688.8
Chenault Reach begins below Derby and extends several miles downstream.		
DERBY CREEK	RIGHT BANK	688.9
MOGAN LANDING, Perry Co., Ind.	RIGHT BANK	689.5
CHENAULT LANDING, Breckinridge Co., Ky. (35)	LEFT BANK	689.7
BREWSTER LANDING, Perry Co., Ind.	RIGHT BANK	689.7
CUMMINGS LANDING, Perry Co., Ind.	RIGHT BANK	690.7
Least water over Chenault Reach, 2.6 feet, below this point.		
204. CHENAULT REACH LIGHT No. 3. Color White	RIGHT BANK	691.1
Channel crosses toward Kentucky shore, with least depth about 2.8 feet.		
STALLMAN LANDING, Breckinridge Co., Ky	LEFT BANK	691.3
WARREN LANDING, Breckinridge Co., Ky	LEFT BANK	692.0
YELLOW BANK CREEK	LEFT BANK	692.0
ROBERTS LANDING, Breckinridge Co., Ky	LEFT BANK	692.7
LITTLE POISON CREEK	RIGHT BANK	692.0
Channel leads toward Indiana shore near Light No. 203.		
BIG POISON CREEK	RIGHT BANK	692.1
208. CHENAULT REACH LIGHT No. 1. Color White	RIGHT BANK	692.9
RAYBURN LANDING, Breckinridge Co., Ky	LEFT BANK	694.3
LICK RUN	LEFT BANK	695.1
UNION STAR LANDING, Breckinridge Co., Ky. (100)	LEFT BANK	695.2
202. STEPHENSPORT BEND LIGHT. Color White	LEFT BANK	695.3
ROME, Perry Co., Ind. (260)	RIGHT BANK	697.2
SINKING CREEK	LEFT BANK	697.3
STEPHENSPORT, Breckinridge Co., Ky. (205)	LEFT BANK	697.4
Railroad: Lou., Hend. & St. L.		
ADDISON, Breckinridge Co., Ky. (60)	LEFT BANK	699.7
OHIO RIVER DAM No. 45		699.7
Under construction, 1920. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 900 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 1, p. 25.		
BEAR CREEK	RIGHT BANK	699.9
WHEELER LANDING, Perry Co., Ind.	RIGHT BANK	699.9
BRASHEAR CREEK	RIGHT BANK	700.1
201. HOLT BAR LIGHT. Color White	RIGHT BANK	700.3
KENNY CREEK	RIGHT BANK	700.4
BUCK RUN	RIGHT BANK	700.7
A low bar (Holts) about middle of river near this point.		
KINGLEY CREEK and LANDING	RIGHT BANK	700.9
PATES HOLLOW	RIGHT BANK	701.0
SEMPLE RUN	RIGHT BANK	701.5
HOLT, Breckinridge Co., Ky. (40)	LEFT BANK	701.7
ADAMS RUN and LANDING	RIGHT BANK	702.6
REYNOLDS LANDING	LEFT BANK	702.6
TOWN CREEK	LEFT BANK	702.7
BULL CREEK	LEFT BANK	702.8

OHIO RIVER 46.

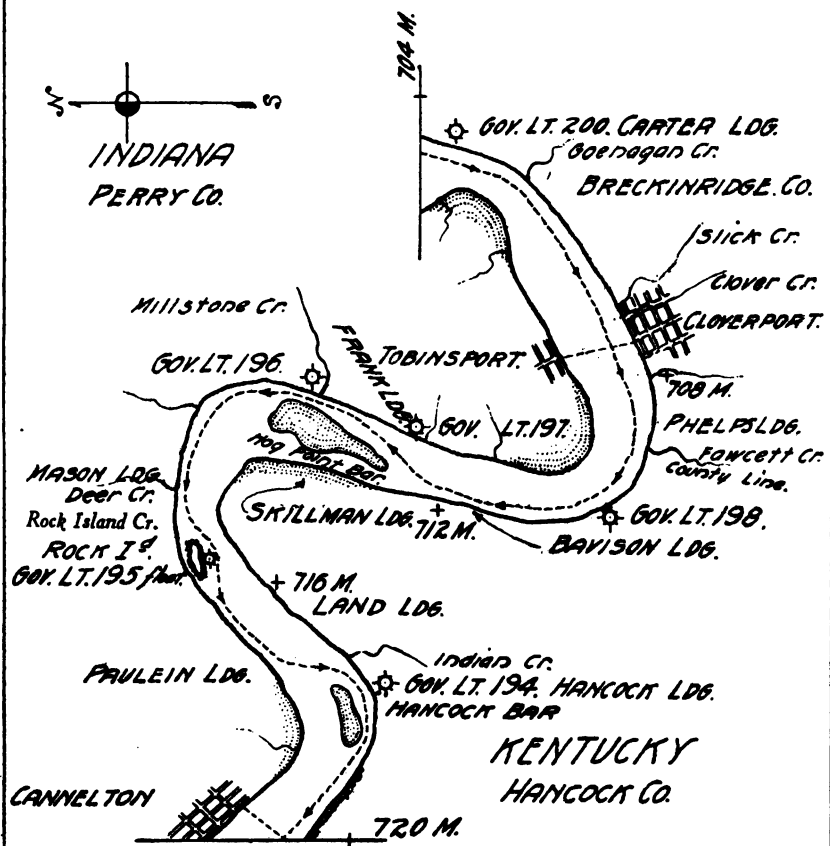


Chart No. 46.

Miles below
Pittsburgh.

200. CARTER LANDING LIGHT. Color White	LEFT BANK	704.4
Carter Landing, Breckinridge Co., Ky.		
GOEHAGAN CREEK	LEFT BANK	705.8
SLICK CREEK	LEFT BANK	707.1
CLOVER CREEK	LEFT BANK	707.8
TOBINSPOUT, Perry Co., Ind. (150)	RIGHT BANK	707.8
Ferry to Cloverport, Ky.		
CLOVERPORT, Breckinridge Co., Ky. (1,408)	LEFT BANK	707.6
Railroad: Lou., Hend. & St. L.		
PHILIPS LANDING, Breckinridge Co., Ky.	LEFT BANK	708.6
FAWCETT CREEK	LEFT BANK	708.9
COUNTY LINE, Breckinridge-Hancock	LEFT BANK	708.9
198. CLOVERPORT BEND LIGHT. Color White	LEFT BANK	709.9
DAVISON LANDING, Hancock Co., Ky.	LEFT BANK	711.7
197. FRANK LANDING LIGHT. Color White	RIGHT BANK	712.4
Frank Landing, Perry Co., Ind.		
HOG POINT, BAR, head	LEFT OF CHANNEL	712.8
Channel between bar and Indiana shore. Least water about 3.5 feet; bar about 1 mile long.		
MILLSTONE CREEK	RIGHT BANK	713.6
SKILLMAN LANDING, Hancock Co., Ky.	LEFT BANK	713.7
196. HOG POINT LIGHT. Color White	RIGHT BANK	713.7
DEER CREEK	RIGHT BANK	714.9
MASON LANDING, Perry Co., Ind.	RIGHT BANK	714.9
ROCK ISLAND CREEK	RIGHT BANK	715.4
ROCK ISLAND, lying near Indiana shore	RIGHT OF CHANNEL	715.5
195. ROCK ISLAND FLOAT LIGHT. Color Black	RIGHT OF CHANNEL	715.6
Outside of Rock Island, near foot.		
LAND LANDING, Hancock Co., Ky.	LEFT BANK	716.1
PAULEIN LANDING, Perry Co., Ind.	RIGHT BANK	717.0
INDIAN CREEK	LEFT BANK	717.5
HANCOCK BAR, head	RIGHT OF CHANNEL	717.8
Channel between bar and Kentucky shore.		
194. HANCOCK BEND LIGHT. Color White	LEFT BANK	717.9
Hancock Landing, Hancock Co., Ky.		
CANNELTON, Perry Co., Ind. (2,180) (upper end of town)	RIGHT BANK	720.0
County seat of Perry County. Industries: Coal mining and manufacturing; also banking and general merchandising. Railroad: Southern. Ferry to Hawesville, Ky.		

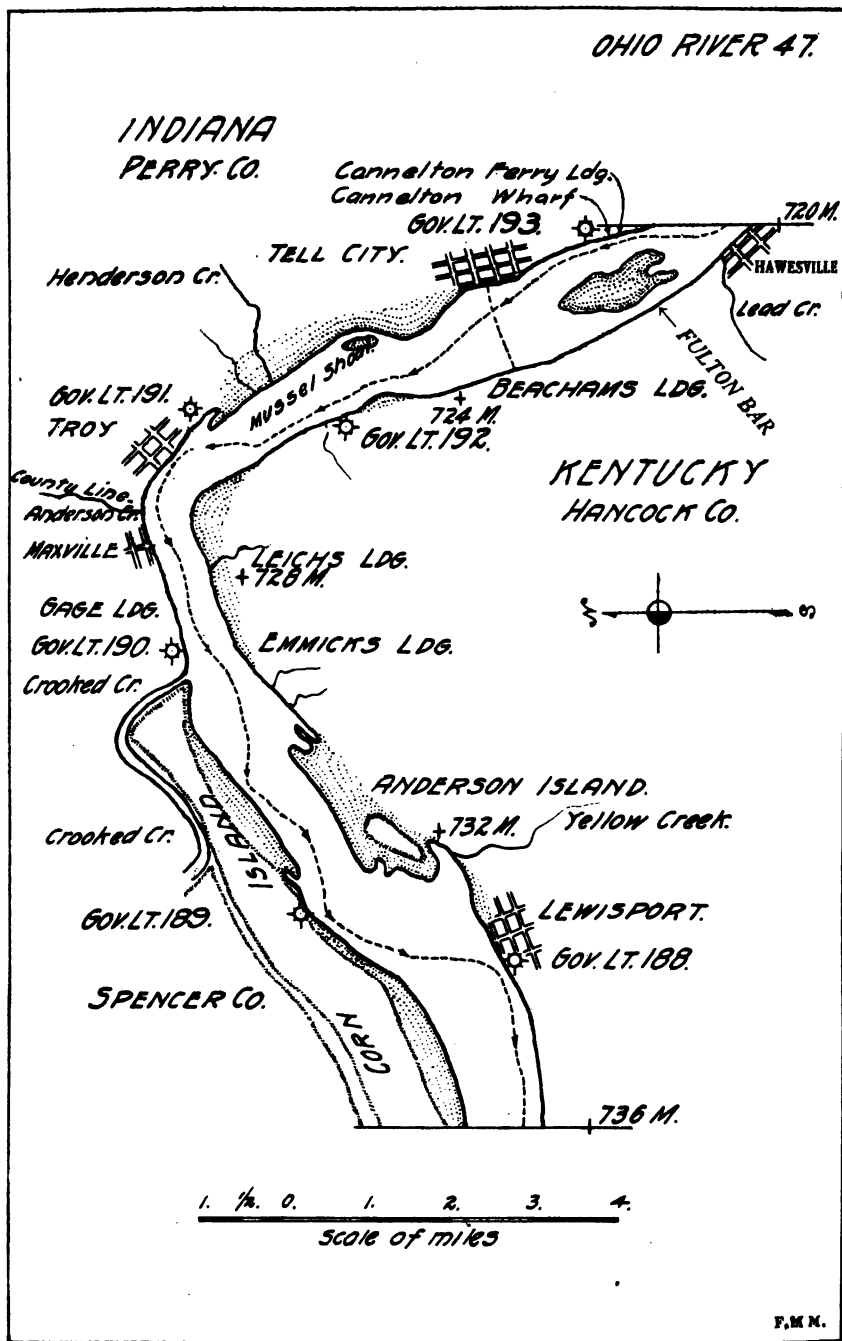


Chart No. 47.

Miles below
Pittsburgh.

HAWESVILLE, county seat of Hancock Co., Ky (1,002)	LEFT BANK	720.1
Railroad: Lou., Hend. & St. L. Ferry to Cannelton, Ind.		
CANNELTON FERRY LANDING	RIGHT BANK	720.2
CANNELTON WHARF	RIGHT BANK	720.4
HEAD CREEK	LEFT BANK	720.5
HEAD OF FULTON BAR	LEFT OF CHANNEL	721.3
Channel between bar and Indiana shore. Bar about one-half mile long.		
193. FULTON COAL TIPPLe LIGHT. Color White	RIGHT BANK	721.3
TELL CITY, Perry Co., Ind. (3,369)	RIGHT BANK	723.1
Interests: Furniture and other manufacture, banking, and general merchandising. Railroad: Southern. Ferry to Kentucky shore.		
BEACHAMS LANDING, Hancock Co., Ky	LEFT BANK	723.9
MUSSEL SHOAL, near Indiana shore, channel to left		724.6
Shoal water for about 2 miles.		
192. TROY BEACH LIGHT. Color White	LEFT BANK	725.4
HENDERSON CREEK	RIGHT BANK	726.1
191. TROY HILL LIGHT. Color White	RIGHT BANK	726.9
TROY, Perry Co., Ind. (510)	RIGHT BANK	727.1
Railroad: Southern.		
ANDERSON CREEK	RIGHT BANK	727.5
COUNTY LINE, Perry-Spencer, Ind.	RIGHT BANK	727.5
MAXVILLE, Spencer Co., Ind.	RIGHT BANK	727.6
LEICHS LANDING, Hancock Co., Ky	LEFT BANK	728.0
GAGE LANDING, Spencer Co., Ind.	RIGHT BANK	728.3
190. GAGE LANDING LIGHT. Color White	RIGHT BANK	728.7
EMMICKS LANDING, Hancock Co., Ky	LEFT BANK	728.8
CROOKED CREEK	RIGHT BANK	729.1
CORN ISLAND, lying near Indiana shore, head		729.1
Island about 8.4 miles long; channel to left of island.		
ANDERSON ISLAND near Kentucky shore, head		731.0
Island about 1.4 miles long; channel to right of island.		
189. ANDERSON BAR LIGHT on Corn Island. Color White	RIGHT OF CHANNEL	731.7
Channel makes crossing toward Kentucky shore.		
YELLOW CREEK	LEFT BANK	732.4
Least water on bar above Lewisport, about 2.9 feet.		
LEWISPORT, Hancock Co., Ky. (596)	LEFT BANK	733.8
Railroad: Lou., Hend. & St. L.		
188. LEWISPORT LIGHT. Color White	LEFT BANK	733.9

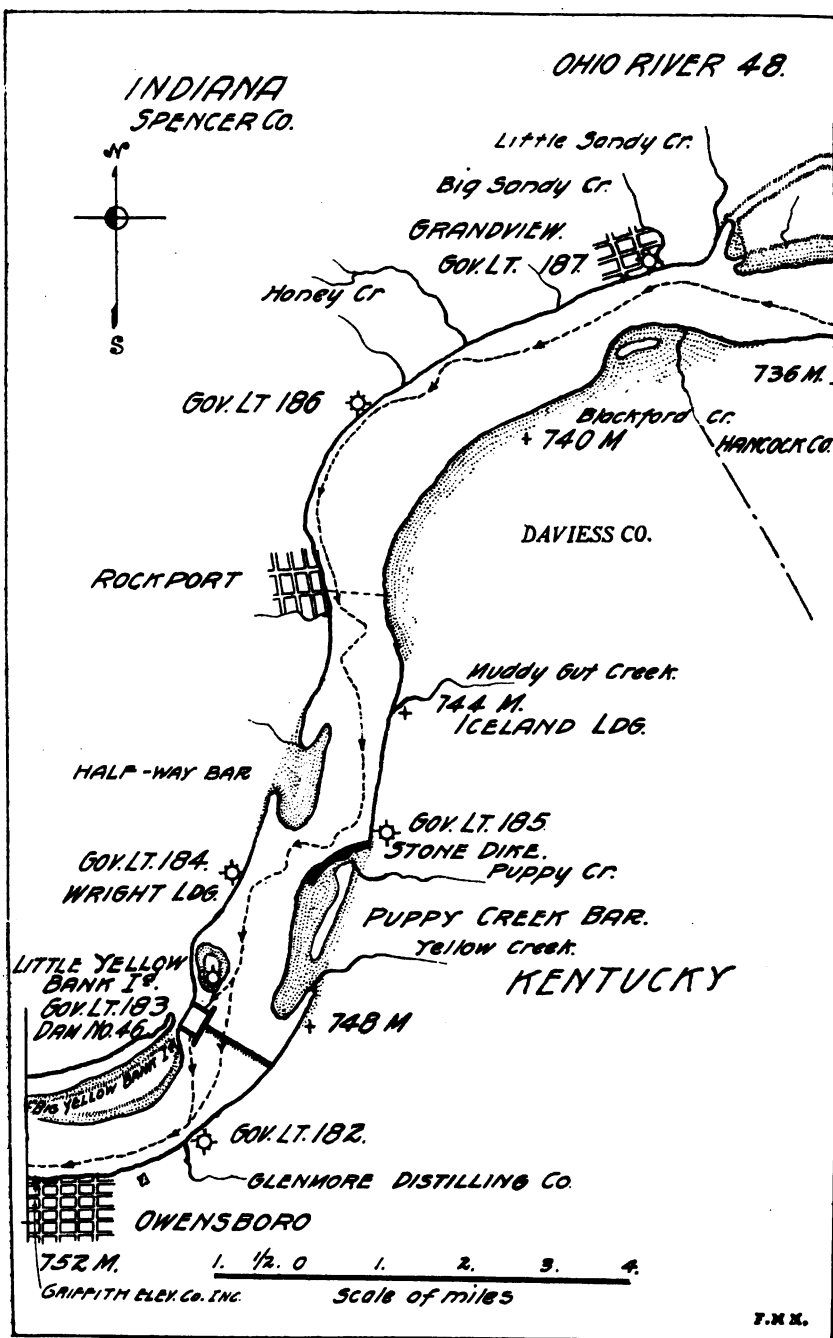


Chart No. 48.

Miles below
Pittsburgh.

LITTLE SANDY CREEK	RIGHT BANK	737.3
BLACKFORD CREEK	LEFT BANK	738.0
County line, Hancock-Davless.		
BIG SANDY CREEK	RIGHT BANK	738.0
187. GRAND VIEW LIGHT. Color White.	RIGHT BANK	738.1
GRANDVIEW, Spencer Co., Ind. (735).	RIGHT BANK	738.2
Electric line to Evansville and intermediate points.		
HONEY CREEK	RIGHT BANK	740.0
186. HONEY CREEK LIGHT. Color White.	RIGHT BANK	741.2
Channel follows right bank closely to Rockport, Ind. Least water on bar about 3.6 feet.		
ROCKPORT, County seat of Spencer Co., Ind (2,726).	RIGHT BANK	742.7
Channel makes out toward Kentucky shore, but returns and then makes long crossing toward Light 185. Railroad: Southern. Electric line to Grandview and Evansville. Ferry to Kentucky shore.		
MUDDY GUT CREEK	LEFT BANK	744.0
ICELAND LANDING, Davless Co., Ky.	LEFT BANK	744.0
HEAD OF HALF-WAY BAR, from Indiana shore	RIGHT BANK	744.2
Bar about 1.7 miles long.		
185. PUPPY CREEK LIGHT. Color White.	LEFT BANK	745.2
Curved dike just below, 2,935 feet long. Puppy Creek Bar extends about 2½ miles below this light, but is not often troublesome. Puppy Creek enters the river behind dike.		
184. PUPPY CREEK DIKE LIGHT. Color White.	RIGHT BANK	746.5
WRIGHT LANDING, Spencer Co., Ind.	RIGHT BANK	746.6
YELLOW CREEK	LEFT BANK	747.4
LITTLE YELLOW BANK ISLAND	RIGHT BANK	747.5
About 0.7 mile long, close to Indiana shore.		
183. YELLOW BANK ISLAND LIGHT No. 1. On island. Color White.	RIGHT OF CHANNEL	748.2
Channel makes long crossing to Light 182.		
OHIO RIVER DAM No. 46		748.5
Site selected, but no work in progress. When completed, lock on right bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 1, p. 25.		
BIG YELLOW BANK ISLAND, near Indiana shore	RIGHT OF CHANNEL	749.6
Island about 2.8 miles long.		
182. YELLOW BANK ISLAND LIGHT No. 2. Color White.	LEFT BANK	749.9
GLENMORE DISTILLING CO., Davless Co., Ky.	LEFT BANK	750.7
OWENSBORO (16,011), upper end, foot of Pearl St.	LEFT BANK	751.5
County seat of Davless Co., Ky. Interests: Manufacturing, coal mining, banking, and general merchandising. Railroads: Illinois Central; Louisville & Nashville; Lou., Hend. & St. L.		
GRIFFITH ELEVATOR CO. ELEVATOR	LEFT BANK	751.9

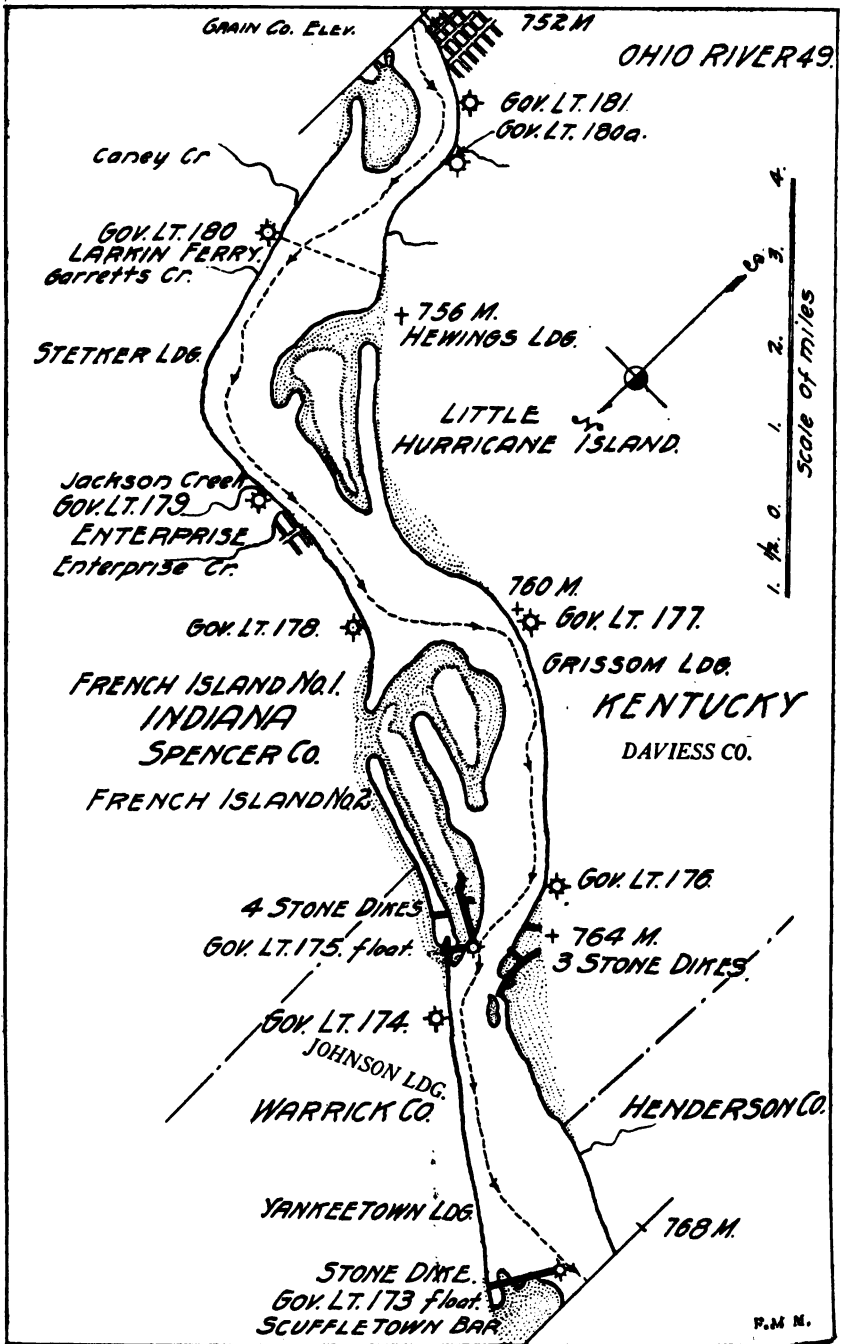


Chart No. 49.

Miles below
Pittsburgh.

OWENSBORO, foot of Frederica St.	LEFT BANK	752.1
OWENSBORO GRAIN CO. ELEVATOR	LEFT BANK	752.1
HEAD OF BAR from Indiana shore	RIGHT BANK	752.1
181. OWENSBORO BEND LIGHT No. 4. Color White	LEFT BANK	752.2
180a. OWENSBORO BEND LIGHT No. 2. Color White	LEFT BANK	752.2
Channel crosses toward Indiana shore.		
CANEY CREEK	RIGHT BANK	755.2
180. LARKIN FERRY LIGHT. Color White	RIGHT BANK	755.7
Channel follows down near Indiana shore to Light 178.		
LARKIN FERRY, Spencer Co., Ind.	RIGHT BANK	755.7
GARRETS CREEK	RIGHT BANK	756.9
NEWINGS LANDING, Daviess Co., Ky	LEFT BANK	756.1
LITTLE HURRICANE ISLAND, near Kentucky shore, head	LEFT BANK	756.1
Island about 2.3 miles long.		
STETKER LANDING, Spencer Co., Ind.	RIGHT BANK	756.5
JACKSON CREEK	RIGHT BANK	757.5
179. LITTLE HURRICANE LIGHT. Color White	RIGHT BANK	757.5
ENTERPRISE CREEK	RIGHT BANK	758.1
ENTERPRISE, Spencer Co., Ind. (80)	RIGHT BANK	758.2
178. FRENCH ISLAND LIGHT No. 6. Color White	RIGHT BANK	759.2
Channel crosses from this light toward Light 177 on Kentucky shore.		
BAR AT FRENCH ISLAND No. 1, head	RIGHT BANK	760.9
N. B.—Channel runs to the left of both islands.		
177. FRENCH ISLAND LIGHT No. 4. Color White	LEFT BANK	760.2
Channel follows near Kentucky shore to Light 176.		
GRISSOM LANDING, Daviess Co., Ky	LEFT BANK	760.7
FRENCH ISLAND No. 2, head	RIGHT BANK	761.0
COUNTY LINE, Spencer-Warrick, Ind.	RIGHT BANK	762.9
176. FRENCH ISLAND LIGHT No. 2. Color White	LEFT BANK	762.5
Channel crosses toward Float Light 175 at end of lower dike from Indiana shore below island.		
STONE TRAINING DIKE FROM ISLAND No. 2	RIGHT OF CHANNEL	762.5
STONE SPUR DIKE from island training dike	RIGHT OF CHANNEL	762.7
BACK CHANNEL STONE DAM, Indiana shore and island	RIGHT BANK	762.8
STONE SPUR DIKE from Kentucky shore	LEFT BANK	762.9
STONE TRAINING DIKE from Kentucky shore	LEFT BANK	764.1
Length, 3,500 feet. Shoalest water, 2.6 feet, above this dike.		
STONE SPUR DIKE from Kentucky training dike, 400 feet long	LEFT BANK	764.2
175. FRENCH ISLAND FLOAT LIGHT No. 8 (end of dike). Color white.	RIGHT OF CHANNEL	764.2
STONE SPUR DIKE from Indiana shore, 400 feet long	RIGHT BANK	764.2
174. FRENCH ISLAND LIGHT No. 1. Color White	RIGHT BANK	764.7
JOHNSON LANDING, Warrick Co., Ind.	RIGHT BANK	765.6
COUNTY LINE, Daviess-Henderson Cos., Ky	LEFT BANK	766.2
YANKEETOWN LANDING, Warrick Co., Ind. (209)	RIGHT BANK	767.0
STONE SPUR DIKE, 1,320 feet long, from Indiana shore	RIGHT BANK	768.0
173. YANNADA REEF FLOAT LIGHT, end of dike. Color Black	RIGHT OF CHANNEL	768.0
HEAD OF SCUFFLETOWN BAR, from Indiana shore	RIGHT BANK	768.0
From this point the navigation is complicated, with repeated crossings and turnings for a distance of 4 miles. The navigator should observe very closely all post and float lights in order to make his crossings properly.		

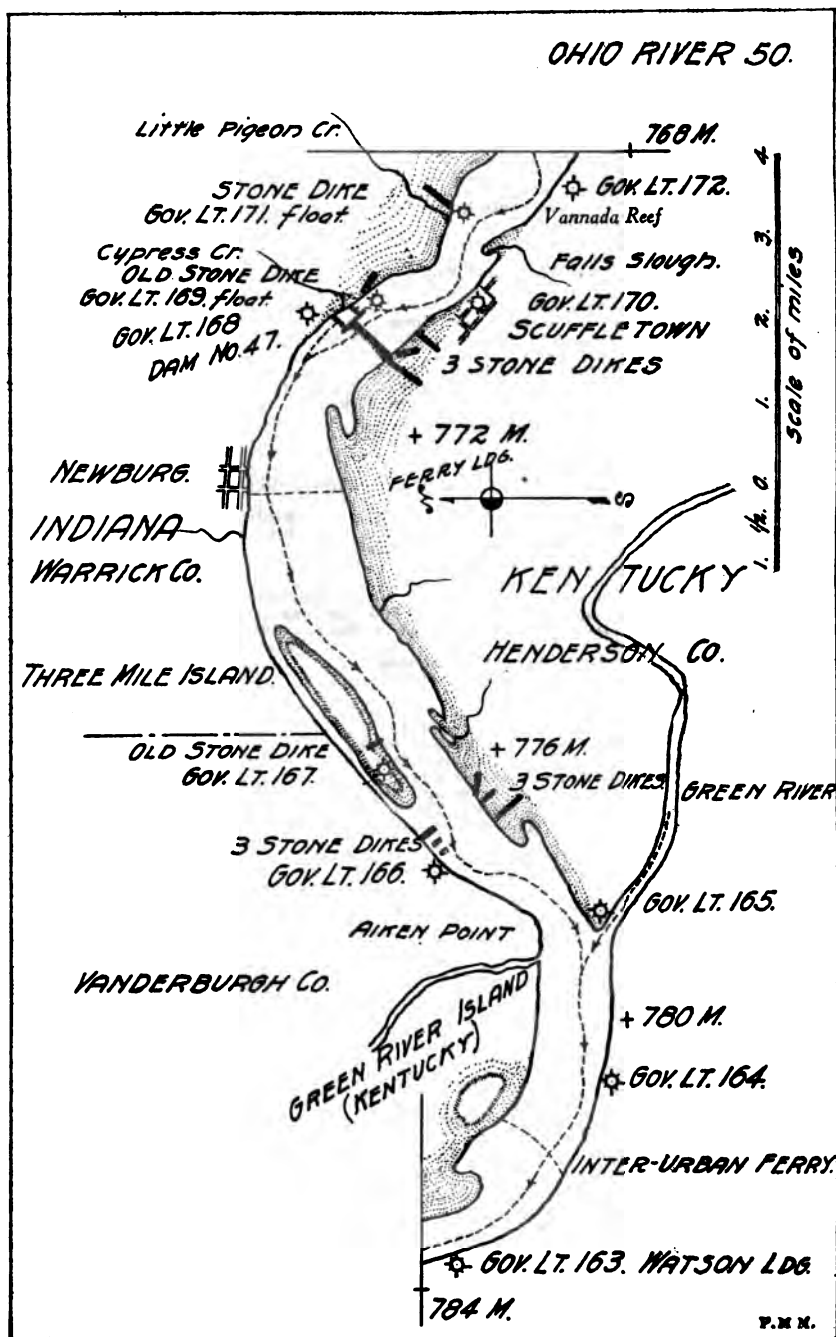


Chart No. 50.

Miles below
Pittsburgh.

172. VANNADA LANDING LIGHT. Color White	LEFT BANK	768.5
Channel crosses to Float Light 171 at end of stone dike.		
VANNADA REEF	LEFT BANK	768.6
171. FALLS SLOUGH FLOAT LIGHT. Color Black	RIGHT OF CHANNEL	769.4
Channel crosses toward Scuffletown Light No. 2.		
FALLS SLOUGH	LEFT BANK	769.4
STONE SPUR DIKE, 670 feet long	RIGHT BANK	769.4
LITTLE PIGEON CREEK	RIGHT BANK	769.5
170. SCUFFLETOWN LIGHT No. 2. Color White	LEFT BANK	770.2
Channel crosses toward Scuffletown Float Light No. 169.		
SCUFFLETOWN, Henderson Co., Ky. (65)	LEFT BANK	770.2
REMAINS OF STONE TRAINING DIKE, now only 650 feet long, head	RIGHT BANK	770.2
STONE SPUR DIKE, 780 feet long	LEFT BANK	770.2
169. SCUFFLETOWN FLOAT LIGHT No. 2. Color Black	RIGHT OF CHANNEL	771.0
REMAINS OF STONE TRAINING DIKE, 870 feet long	LEFT BANK	771.0
CYPRESS CREEK	RIGHT BANK	771.2
OHIO RIVER DAM No. 47		771.8
Site adopted, but construction not yet provided for. When completed, lock on right bank; length, 800 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
STONE SPUR DIKE, 1,640 feet long, from	LEFT BANK	771.4
168. SCUFFLETOWN LIGHT No. 1. Color White	RIGHT BANK	771.4
FERRY LANDING, Kentucky shore, from Newburg, Ind.	LEFT BANK	772.6
NEWBURG, Warrick Co., Ind. (1,097?), ferry landing	RIGHT BANK	772.8
Electric railway to Evansville, Rockport, and Grandview. Channel continues near Indiana shore, but keeping to the left of Three Mile Island.		
THREE MILE ISLAND, near Indiana shore, head	RIGHT OF CHANNEL	773.8
Island about 2.5 miles long. Channel on island side of river until past the foot.		
COUNTY LINE, Warrick-Vanderburg, Ind.	RIGHT BANK	775.0
STONE SPUR DIKE, from Three Mile Island, 290 feet long	RIGHT OF CHANNEL	775.6
167. THREE MILE ISLAND LIGHT No. 3, island shore. Color White	RIGHT OF CHANNEL	775.8
HEAD OF SHORE BAR, Kentucky shore	LEFT BANK	775.8
STONE TRAINING DIKE, 1,430 feet long, head	LEFT BANK	776.2
STONE SPUR DIKE	RIGHT BANK	776.2
STONE SPUR DIKE, 500 feet long	LEFT BANK	776.6
STONE SPUR DIKE, 100 feet long	RIGHT BANK	776.6
STONE SPUR DIKE, 90 feet long	RIGHT BANK	776.8
Channel approaches closely the end of this dike.		
166. THREE MILE ISLAND LIGHT No. 1. Color White	RIGHT BANK	776.8
STONE SPUR DIKE, 1,130 feet long	LEFT BANK	776.8
FOOT OF SHORE BAR, Kentucky shore	LEFT BANK	777.2
165. GREEN RIVER LIGHT. Color White	LEFT BANK	778.6
AIKEN POINT, Ind.	RIGHT BANK	778.6
GREEN RIVER, mouth	LEFT BANK	778.7
Slack-water navigation by locks and dams (see Tributary streams).		
GREEN RIVER ISLAND, head	RIGHT OF CHANNEL	779.4
N. B.—This so-called island is barely separated from the Indiana mainland by a narrow slough, but politically it is a part of Henderson Co., Ky.		
164. GREEN RIVER TOWHEAD LIGHT. Color White	LEFT BANK	780.7
INTERURBAN FERRY LANDING, Henderson Co., Ky.	LEFT BANK	781.5
163. WATSON LANDING LIGHT. Color White	LEFT BANK	782.6

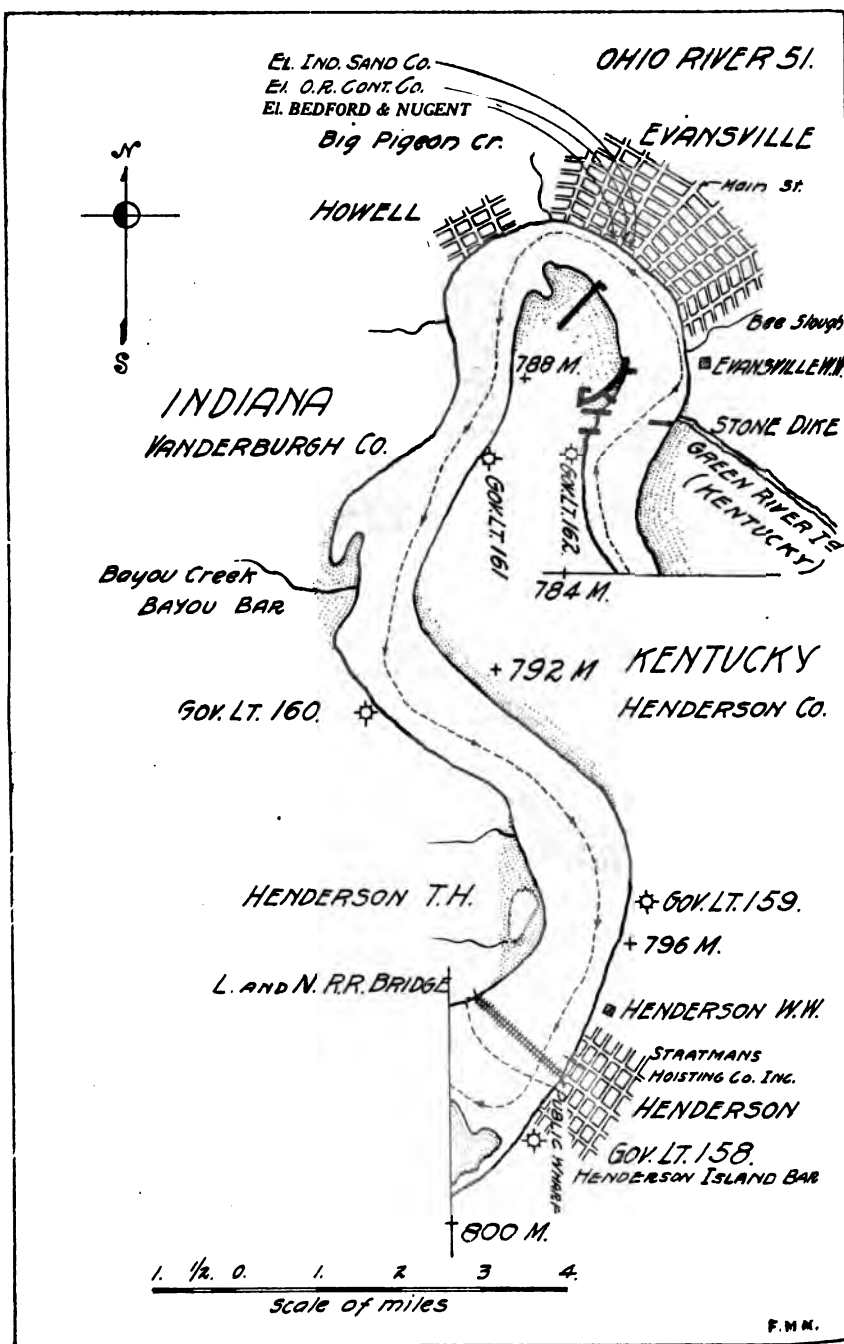


Chart No. 51.

Miles below
Pittsburgh.

182. EVANSVILLE LIGHT. Color White-----	LEFT BANK	785.5
STONE SPUR DIKE, 340 feet long-----	LEFT BANK	785.8
STONE SPUR DIKE, 660 feet long-----	RIGHT BANK	785.9
STONE SPUR DIKE, 750 feet long-----	LEFT BANK	786.0
STONE TRAINING DIKE, 2,600 feet long, head-----	LEFT BANK	786.1
GREEN RIVER ISLAND, foot-----	RIGHT OF CHANNEL	786.1
STONE SPUR DIKE, 210 feet long, from training dike-----	LEFT BANK	786.3
STONE SPUR DIKE, 180 feet long, from training dike-----	LEFT BANK	786.4
EVANSVILLE WATERWORKS-----	RIGHT BANK	786.7
REE SLOUGH-----	RIGHT BANK	786.7
EVANSVILLE, county seat, Vanderburg Co., Ind. (69,647), Main Street-----	RIGHT BANK	787.0
Railroads: Chicago & Eastern Illinois; C. C. C. & St. L.; Illinois Central; Lou. & Nashville; Lou., Hend. & St. L.; Southern Ry. Electric lines: Local; also to Newburg, Rockport, Grandview, etc.; and, crossing by transfer boat, to Green River points. Steamboat lines to upper and lower Ohio River points, Green River, Henderson, Ky., etc. Interests varied: Banking and general mercantile business; manufacturing of all kinds: coal from Indiana and Ohio and Green River mines; sand and gravel.		
ELEVATOR OF INDEPENDENT SAND & GRAVEL CO-----	RIGHT BANK	787.1
STONE SPUR DIKE, 1,500 feet long-----	LEFT BANK	787.1
ELEVATOR, OHIO RIVER CONTRACT CO-----	RIGHT BANK	787.15
ELEVATOR, BEDFORD & NUGENT-----	RIGHT BANK	787.3
BIG PIGEON CREEK-----	RIGHT BANK	787.5
HOWELV, Vanderburg Co., Ind. (1,890)-----	RIGHT BANK	787.7
161. HARRIS LANDING LIGHT. Color White-----	LEFT BANK	789.0
RAYOU CREEK AND BAR-----	RIGHT BANK	790.3
160. DUTCH BEND LIGHT. Color White-----	RIGHT BANK	791.5
159. HENDERSON TOWHEAD LIGHT. Color White-----	LEFT BANK	795.6
HENDERSON TOWHEAD, head-----	RIGHT BANK	795.8
HENDERSON TOWHEAD, foot-----	RIGHT BANK	796.6
HENDERSON WATERWORKS-----	LEFT BANK	796.8
STRATMAN HOISTING CO. INCLINE-----	LEFT BANK	797.6
LOUISVILLE & NASHVILLE B. R. BRIDGE-----		797.8
Channel span, 500 feet; height, 101.3 feet.		
HENDERSON WHARF-----	LEFT BANK	798.0
Henderson (11,452), the county seat of Henderson Co., Ky. Railroads: Illinois Central; Lou. & Nashville; Lou., Hend. & St. L. Interests: Banking and general mercantile business; manufacturing; coal, sand, and gravel. Ferry to Indiana shore. Electric lines local.		
158. HENDERSON LIGHT. Color White-----	LEFT BANK	798.8
HENDERSON ISLAND BAR, head-----	LEFT BANK	799.1
Channel to left of island.		

OHIO RIVER 52.

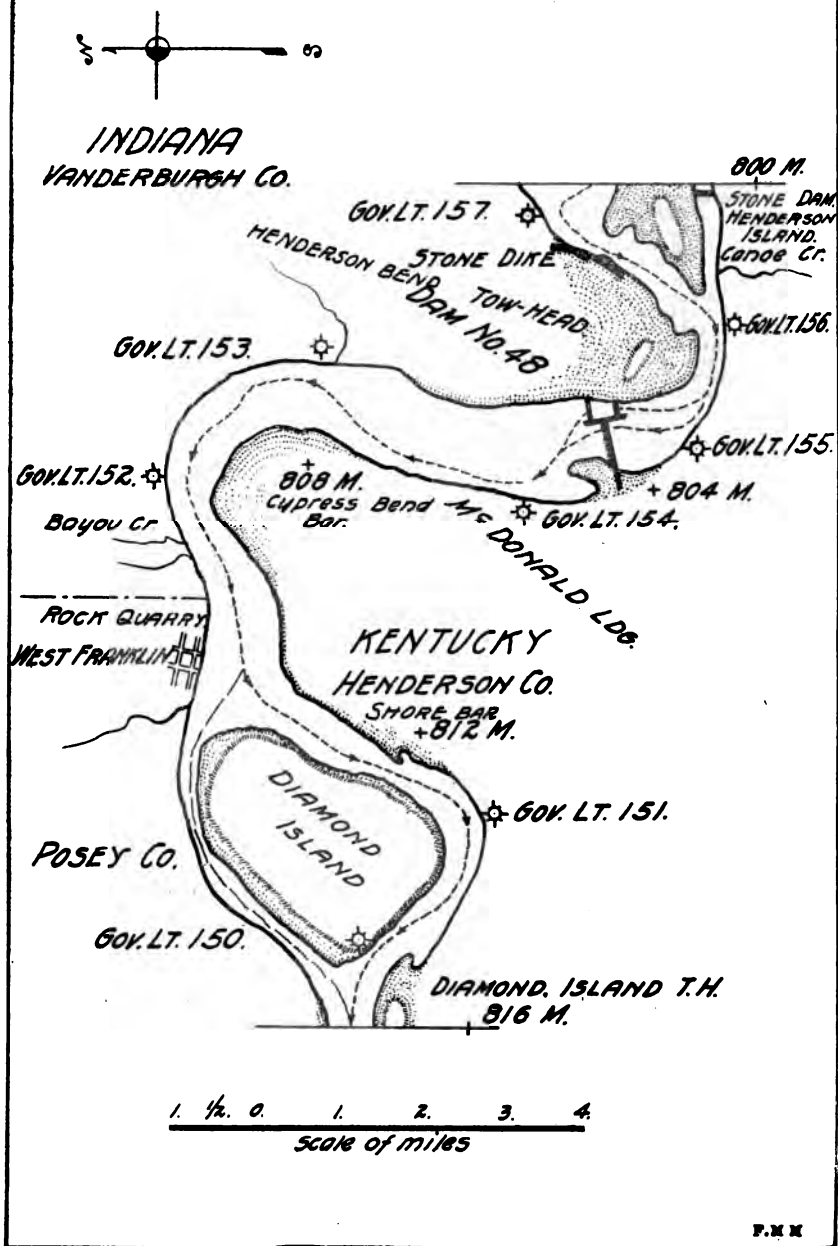


Chart No. 52.

Miles below
Pittsburgh.

STONE DAM (back channel closed at low stages)-----	LEFT BANK	800.1
157. HENDERSON ISLAND LIGHT No. 1. Color White-----	RIGHT BANK	800.3
Channel makes long crossing toward Light No. 156. Least water 2.7 feet nearly opposite No. 157.		
STONE TRAINING DIKE, 1,980 feet long from-----	RIGHT BANK	800.6
CANOE CREEK, back channel-----	LEFT BANK	801.1
HENDERSON ISLAND BAR, foot-----	LEFT OF CHANNEL	801.3
156. HENDERSON ISLAND LIGHT No. 2. Color White-----	LEFT BANK	801.3
Channel follows along left—Kentucky shore.		
HENDERSON BEND TOWHEAD, Ind., shore head-----	RIGHT BANK	802.0
155. HENDERSON BEND LIGHT. Color White-----	LEFT BANK	802.3
OHIO RIVER DAM No. 48-----		804.1
Under construction, 1920. Lock, right bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note the directions and caution as in case of Dam No. 1, p. 25.		
154. TOBACCO PATCH LIGHT. Color White-----	LEFT BANK	805.3
McDONALD LANDING, Henderson Co., Ky-----	LEFT BANK	806.5
CYPRESS BEND BAR, head-----	LEFT BANK	807.7
153. CYPRESS BEND LIGHT No. 3. Color White-----	RIGHT BANK	808.0
152. CYPRESS BEND LIGHT No. 1. Color White-----	RIGHT BANK	808.9
BAYOU CREEK-----	RIGHT BANK	809.1
CYPRESS BEND BAR, foot-----	LEFT BANK	809.5
COUNTY LINE, Vanderburg-Posey, Ind-----	RIGHT BANK	810.1
ROCK QUARRY-----	RIGHT BANK	810.3
WEST FRANKLIN, Posey Co., Ind. (64)-----	RIGHT BANK	810.3
Wagon road to Mount Vernon, Ind.		
DIAMOND ISLAND, head-----	RIGHT OF CHANNEL	811.5
Channel passes to left of island, and when about half way down crosses toward Light No. 151.		
SHORE BAR, opposite island, head-----	LEFT BANK	811.8
151. DIAMOND ISLAND LIGHT No. 2. Color White-----	LEFT BANK	812.2
DIAMOND ISLAND TOWHEAD-----	LEFT BANK	815.1
150. DIAMOND ISLAND LIGHT No. 1, island. Color White-----	RIGHT OF CHANNEL	815.2
DIAMOND ISLAND, foot-----	RIGHT OF CHANNEL	815.3

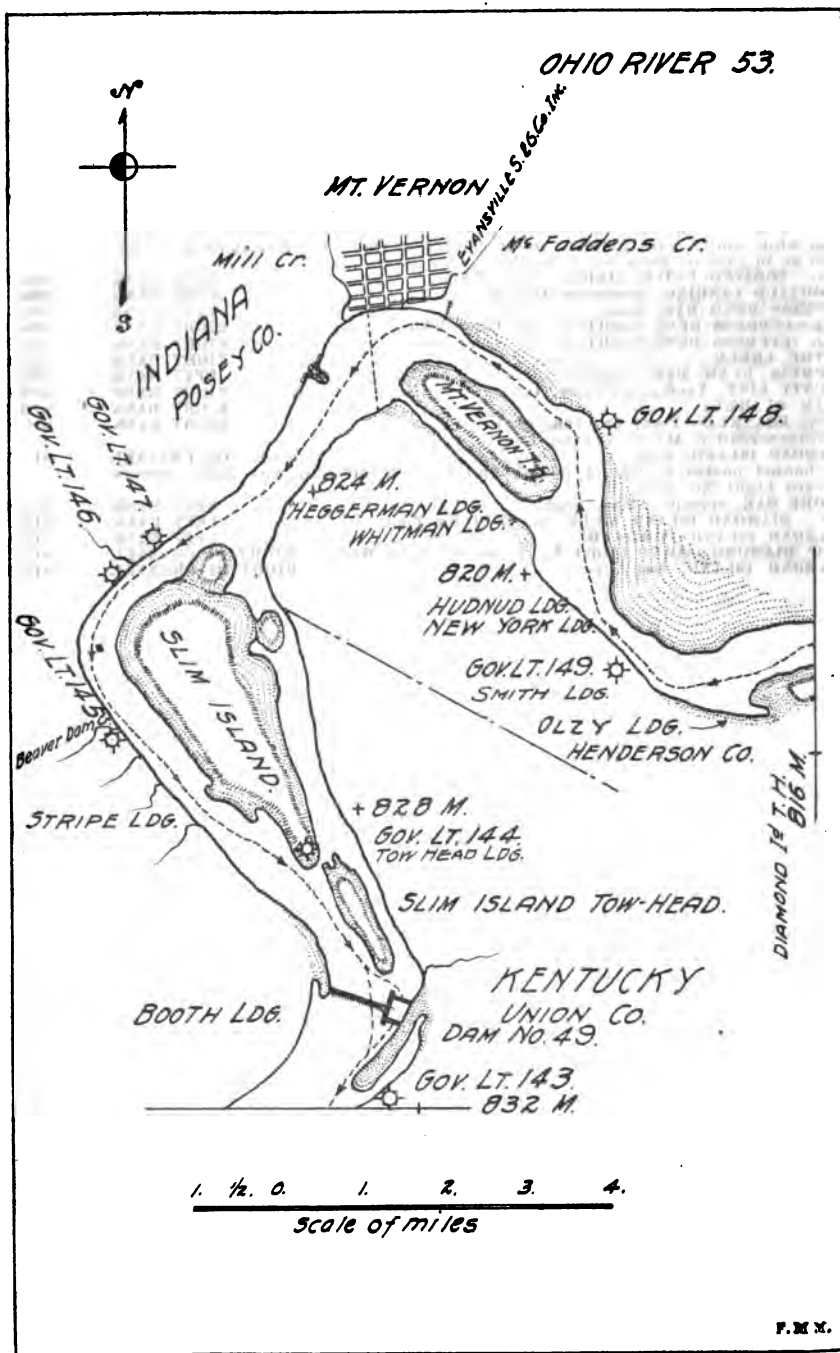


Chart No. 53.

Miles below
Pittsburgh.

DIAMOND ISLAND TOWHEAD, Kentucky shore, foot	LEFT BANK	816.3
OLZY LANDING, Henderson Co., Ky	LEFT BANK	817.1
Shoal water (least depth, 3.2 feet) on bar extending to Light No. 149.		
SMITH LANDING, Henderson Co., Ky	LEFT BANK	817.8
149. LONG LANDING LIGHT. Color White	LEFT BANK	818.6
NEW YORK LANDING, Henderson Co., Ky	LEFT BANK	819.2
HUDNUT LANDING, Henderson Co., Ky	LEFT BANK	819.3
MOUNT VERNON TOWHEAD, head	LEFT OF CHANNEL	820.7
Channel to right of towhead.		
WHITMAN LANDING, Henderson Co., Ky	LEFT BANK	820.8
148. FAYETTE BAR LIGHT. Color White	RIGHT BANK	821.0
MOUNT VERNON TOWHEAD, foot	LEFT OF CHANNEL	822.4
McFADDENS CREEK	RIGHT BANK	822.7
EVANSVILLE S. & G. Co. INCLINE	RIGHT BANK	822.8
MOUNT VERNON, county seat Posey Co., Ind. (5,563)	RIGHT BANK	822.9
Ferry landing. Railroads: Chicago & Eastern Illinois; Louisville & Nashville.		
MILL CREEK	RIGHT BANK	823.0
HEGGERMAN LANDING, Henderson Co., Ky	LEFT BANK	824.1
147. SLIM ISLAND LIGHT No. 5. Color White	RIGHT BANK	825.2
SLIM ISLAND, head. Channel to right (Indiana side)	RIGHT OF CHANNEL	825.3
COUNTY LINE, Henderson-Union, Ky	LEFT BANK	825.5
146. SLIM ISLAND DAYMARK No. 3. Color White	RIGHT BANK	825.5
BEAVER DAM CREEK	RIGHT BANK	826.4
145. SLIM ISLAND LIGHT No. 1. Color White	RIGHT BANK	826.5
STRIPE LANDING, Posey Co., Ind	RIGHT BANK	827.5
TOWHEAD ISLAND LANDING	LEFT BANK	828.2
144. SLIM ISLAND LIGHT No. 2, foot of island. Color White	LEFT OF CHANNEL	828.4
SLIM ISLAND TOWHEAD, near Kentucky shore, head	LEFT OF CHANNEL	828.5
Channel to right of towhead.		
SLIM ISLAND TOWHEAD, foot	LEFT BANK	830.0
OHIO RIVER DAM No. 49		830.5
Site adopted, construction not yet begun. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion, note the directions and caution as in case of Dam No. 1, p. 25.		
BOOTH LANDING, Posey Co., Ind	RIGHT BANK	830.9
143. MISSISSIPPI BEND LIGHT. Color White	LEFT BANK	831.8

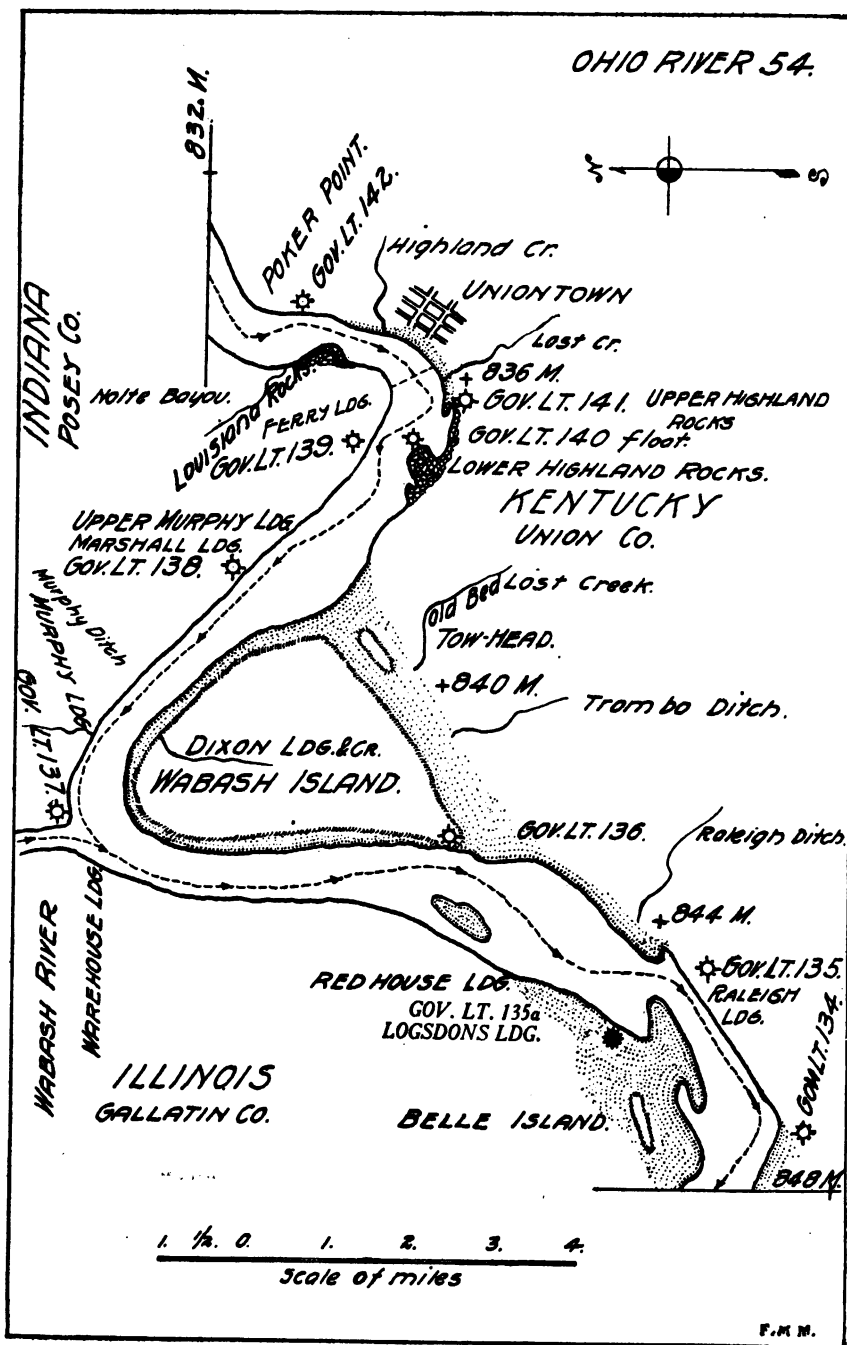


Chart No. 54.

Miles below
Pittsburgh.

POKER POINT, KY	LEFT BANK	832.7
NOLTE BAYOU	RIGHT BANK	832.7
142. POKER POINT LIGHT. Color White	LEFT BANK	832.8
Channel follows near left bank to Light No. 141.		
LOUISIANA ROCKS, Ind., head	RIGHT BANK	832.8
LOUISIANA ROCKS, Ind., foot	RIGHT BANK	834.0
HIGHLAND CREEK	RIGHT BANK	834.6
UNIONTOWN, Union Co., Ky. (1,856)	LEFT BANK	835.4
Incorporated 1840. Railroad: Illinois Central.		
FERRY LANDING, Posey Co., Ind	RIGHT BANK	835.7
LOST CREEK	RIGHT BANK	836.0
141. HIGHLAND ROCKS LIGHT No. 4. Color White	LEFT BANK	836.3
Channel crosses to Light No. 139 on Indiana shore.		
HIGHLAND ROCKS, upper	LEFT BANK	837.0
140. HIGHLAND ROCKS FLOAT LIGHT No. 2. Color Red	LEFT OF CHANNEL	837.0
This light at head of the rocks which extend from Kentucky shore.		
139. HIGHLAND ROCKS LIGHT No. 1. Color White	RIGHT BANK	837.2
Channel turns out toward middle of the river and then returns and follows near right bank to Light No. 137, and below.		
HIGHLAND ROCKS, lower	LEFT BANK	838.0
UPPER MURPHY LANDING, Posey Co., Ind	RIGHT BANK	838.6
WABASH ISLAND, head	LEFT OF CHANNEL	838.7
MARSHALL LANDING, Posey Co., Ind	RIGHT BANK	839.0
138. MARSHALL LANDING LIGHT. Color White	RIGHT BANK	839.0
LOST CREEK TOWHEAD	LEFT BANK	839.5
MURPHY DITCH	RIGHT BANK	839.7
LOST CREEK (back channel)	LEFT BANK	839.8
MURPHY LANDING, Posey Co., Ind	RIGHT BANK	839.8
DIXON CREEK, on Island	LEFT OF CHANNEL	840.0
DIXON LANDING, Wabash Island	LEFT OF CHANNEL	840.2
137. WABASH RIVER LIGHT. Color White	RIGHT BANK	840.2
Wabash River, the boundary line between Indiana and Illinois, 1,300 feet wide at mouth. (For Improvements see Tributary streams.) Channel follows Illinois shore and then gradually crosses toward Light No. 136.		
WAREHOUSE LANDING, Gallatin Co., Ill.	RIGHT BANK	840.6
TEOMBO DITCH (back channel)	LEFT BANK	840.6
136. WABASH ISLAND LIGHT, on Island. Color White	LEFT OF CHANNEL	841.8
Channel leaves left, Kentucky shore, crossing to near middle of river.		
WABASH ISLAND, foot	LEFT OF CHANNEL	842.2
RED HOUSE LANDING, Gallatin Co., Ill.	RIGHT BANK	842.2
Channel makes over toward Light No. 135.		
RALEIGH DITCH	LEFT BANK	844.0
LOGSDONS LANDING, Gallatin Co., Ill.	RIGHT BANK	844.5
135a. RALEIGH LIGHT No. 1. Color White	RIGHT BANK	844.5
BAR from Illinois shore extending past middle of river, head	RIGHT BANK	844.9
Channel to left of bar.		
RALEIGH LANDING, Union Co., Ky. (46)	LEFT BANK	845.0
135. RALEIGH LIGHT No. 2. Color White	LEFT BANK	845.0
Channel near left, Kentucky shore, to Light No. 134.		
BELLE ISLAND, head	RIGHT OF CHANNEL	845.9
BELLE ISLAND, foot	RIGHT OF CHANNEL	846.7
134. J. C. WAREHOUSE LIGHT. Color White	LEFT BANK	847.2

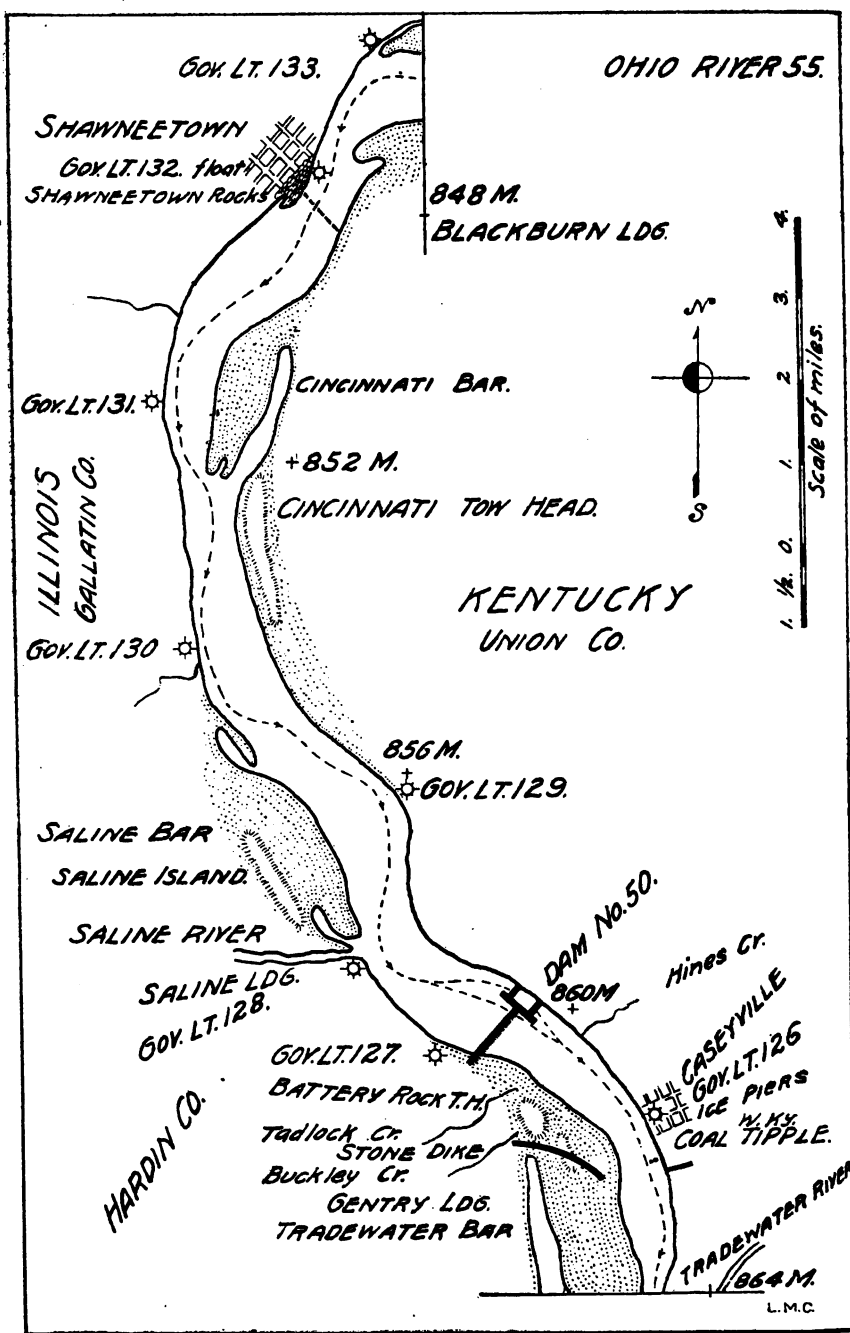


Chart No. 55.

Miles below
Pittsburgh.

122. SHAWNEETOWN BAR LIGHT. Color White.....	RIGHT BANK	848.2
SHAWNEETOWN BAR, from right (Illinois shore).....	RIGHT BANK	848.2
SHAWNEETOWN LEVEE, upper arm.....	RIGHT BANK	848.7
BLACKMURN or FERRY LANDING, Union Co., Ky.....	LEFT BANK	848.8
SHAWNEETOWN, county seat of Gallatin Co., Ill. (1,862).....	RIGHT BANK	848.9
Railroads: Louisville & Nashville, and B. & O. S. W. Ferry to Kentucky shore.		
123. SHAWNEETOWN ROCKS FLOAT LIGHT. Color White.....	RIGHT OF CHANNEL	848.9
SHAWNEETOWN LEVEE, lower arm.....	RIGHT BANK	849.5
CINCINNATI BAR from left (Kentucky shore), head.....	LEFT BANK	849.5
121. BOWLESVILLE MINES LIGHT. Color White.....	RIGHT BANK	851.6
CINCINNATI BAR, foot.....	LEFT OF CHANNEL	852.2
CINCINNATI TOWHEAD, head.....	LEFT BANK	852.7
CINCINNATI TOWHEAD, foot.....	LEFT BANK	852.9
120. SHAWNEETOWN BEND LIGHT. Color White.....	RIGHT BANK	854.0
Channel follows Illinois shore for about half a mile below and then crosses toward Light No. 129.		
SALINE ISLAND BAR, head.....	RIGHT BANK	855.5
SALINE ISLAND, head.....	RIGHT BANK	856.0
129. CINCINNATI TOWHEAD LIGHT. Color White.....	LEFT BANK	856.1
Channel makes out toward Light No. 128.		
SALINE ISLAND BAR, foot.....	RIGHT BANK	857.7
SALINE RIVER, mouth.....	RIGHT BANK	857.8
County line, Gallatin-Hardin, Ill. Saline Landing, Hardin Co., Ill.		
128. SALINE ISLAND LIGHT. Color White.....	RIGHT BANK	857.9
Channel curves out toward left (Kentucky shore).		
127. SELLERS LANDING LIGHT. Color White.....	RIGHT BANK	859.3
OHIO RIVER DAM No. 50.....		859.6
Site adopted; construction not yet begun. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
TADLOCK CREEK.....	RIGHT BANK	860.2
BATTERY or BLARELY ROCK TOWHEAD, head.....	RIGHT BANK	860.3
About 600 feet long.		
HINES CREEK.....	LEFT BANK	860.5
BUCKLEY CREEK.....	RIGHT BANK	861.5
STONE TRAINING DIKE from right (Illinois shore), 3,400 feet long.....	RIGHT BANK	861.8
CASEYVILLE, Union Co., Ky. (230).....	LEFT BANK	861.9
Incorporated 1837. Railroad connection via DeKoven on Illinois Central.		
126. CASEYVILLE LIGHT. Color White.....	LEFT BANK	861.9
ICE PIERS, WEST KENTUCKY COAL CO.....	LEFT BANK	862.4
STONE TRAINING DIKE, foot.....	RIGHT BANK	862.5
WEST KENTUCKY COAL TIPPLE.....	LEFT BANK	862.5
GENTRY LANDING.....	RIGHT BANK	863.0
TRADEWATER BAR.....	RIGHT BANK	

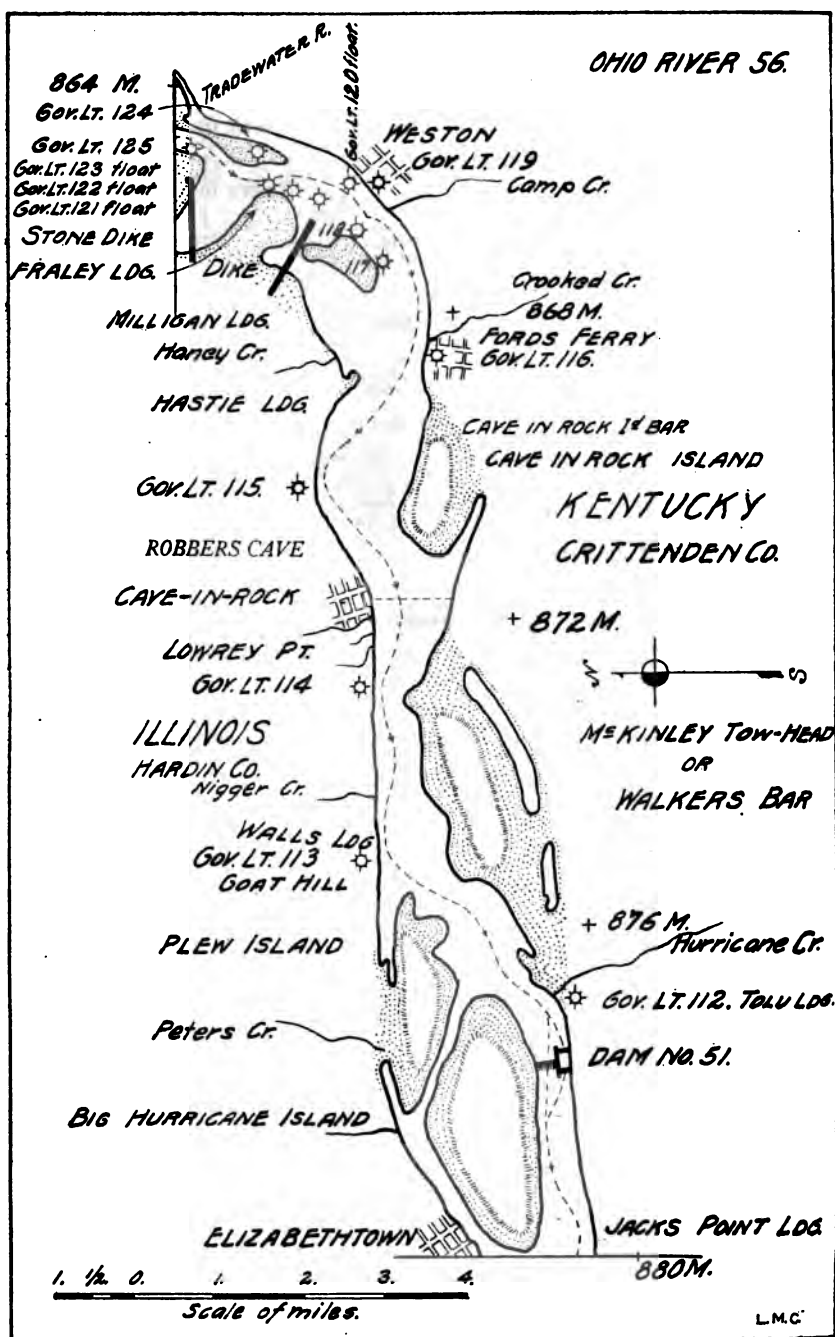


Chart No. 56.

Miles below
Pittsburgh.

TRADEWATER RIVER (county line, Union-Crittenden, Ky.)	LEFT BANK	864.2
STONE SPUR DIKE, 1,879 feet long	RIGHT BANK	864.3
125. TRADEWATER FLOAT LIGHT No. 11, end of dike. Color Black.		
TRADEWATER BAR, foot	RIGHT OF CHANNEL	864.2
124. TRADEWATER SHORE LIGHT. Color White	RIGHT BANK	864.2
FRALAY LANDING, Hardin Co., Ill.	LEFT OF CHANNEL	864.2
123. TRADEWATER FLOAT LIGHT No. 9. Color Black	RIGHT BANK	865.2
122. TRADEWATER FLOAT LIGHT No. 7. Color Black	RIGHT OF CHANNEL	865.2
STONE SPUR DIKE, 1,400 feet long	RIGHT BANK	865.6
121. TRADEWATER FLOAT LIGHT No. 5, end of dike. Color Red.		
120. TRADEWATER FLOAT LIGHT No. 2. Color Black	RIGHT OF CHANNEL	865.8
119. WESTON LIGHT. Color White	LEFT OF CHANNEL	866.2
WESTON, Crittenden Co., Ky. (158)	LEFT BANK	866.5
CAMP CREEK	LEFT BANK	866.5
118. TRADEWATER FLOAT LIGHT No. 8. Color Black	LEFT BANK	866.8
117. TRADEWATER FLOAT LIGHT No. 1. Color Red	RIGHT OF CHANNEL	867.0
MILLIGAN LANDING, Hardin Co., Ill.	RIGHT OF CHANNEL	867.4
HANEY CREEK	RIGHT BANK	867.5
CROOKED CREEK	RIGHT BANK	868.2
116. FORDS FERRY LIGHT. Color White	LEFT BANK	868.5
Channel crosses toward Light No. 115.		
FORDS FERRY, Crittenden Co., Ky. (67)	LEFT BANK	868.6
HASTIE LANDING, Hardin Co., Ill.	RIGHT BANK	869.2
CAVE IN ROCK ISLAND, bar at head	LEFT BANK	869.6
CAVE IN ROCK ISLAND	LEFT OF CHANNEL	870.0
115. CEDAR POINT LIGHT. Color White	RIGHT BANK	870.3
Channel follows in general Illinois shore to Light No. 113.		
ROBBERS CAVE (now a boat yard—Merrill)	RIGHT BANK	871.2
CAVE IN ROCK ISLAND, bar at foot	LEFT OF CHANNEL	871.3
CAVE IN ROCK, Hardin Co., Ill. (306)	RIGHT BANK	871.6
Named for the remarkable cavern just noted.		
LOWREY POINT	RIGHT BANK	872.4
114. FRAYSER LANDING LIGHT. Color White	RIGHT BANK	872.6
McKINLEY TOWHEAD (Walkers bar), head	LEFT BANK	873.0
NIGGER CREEK	RIGHT BANK	873.9
WALLS LANDING, Hardin Co., Ill.	RIGHT BANK	873.9
113. WALKER BAR LIGHT. Color White	RIGHT BANK	874.7
Channel crosses toward Light No. 112.		
GOAT HILL, Hardin Co., Ill.	RIGHT BANK	874.7
McKINLEY TOWHEAD, foot	LEFT BANK	874.8
PLEW ISLAND or TOWHEAD, head	RIGHT BANK	875.5
BIG HURRICANE ISLAND, head	RIGHT OF CHANNEL	876.5
Channel to left of island.		
HURRICANE CREEK	LEFT BANK	876.6
112. TOLU LIGHT. Color White	LEFT BANK	876.7
TOLU LANDING, Crittenden Co., Ky.	LEFT BANK	876.7
PLEW ISLAND, foot	RIGHT BANK	877.3
PETERS CREEK	RIGHT BANK	877.9
OHIO RIVER DAM No. 51		878.0
Site adopted: construction not yet begun. When completed, lock on left bank: length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 1, p. 25.		
ELIZARETHTOWN, Hardin Co., Ill. (682)	RIGHT BANK	879.7
JACKS POINT LANDING, Crittenden Co., Ky.	LEFT BANK	879.8
HURRICANE ISLAND, foot	LEFT OF CHANNEL	879.9

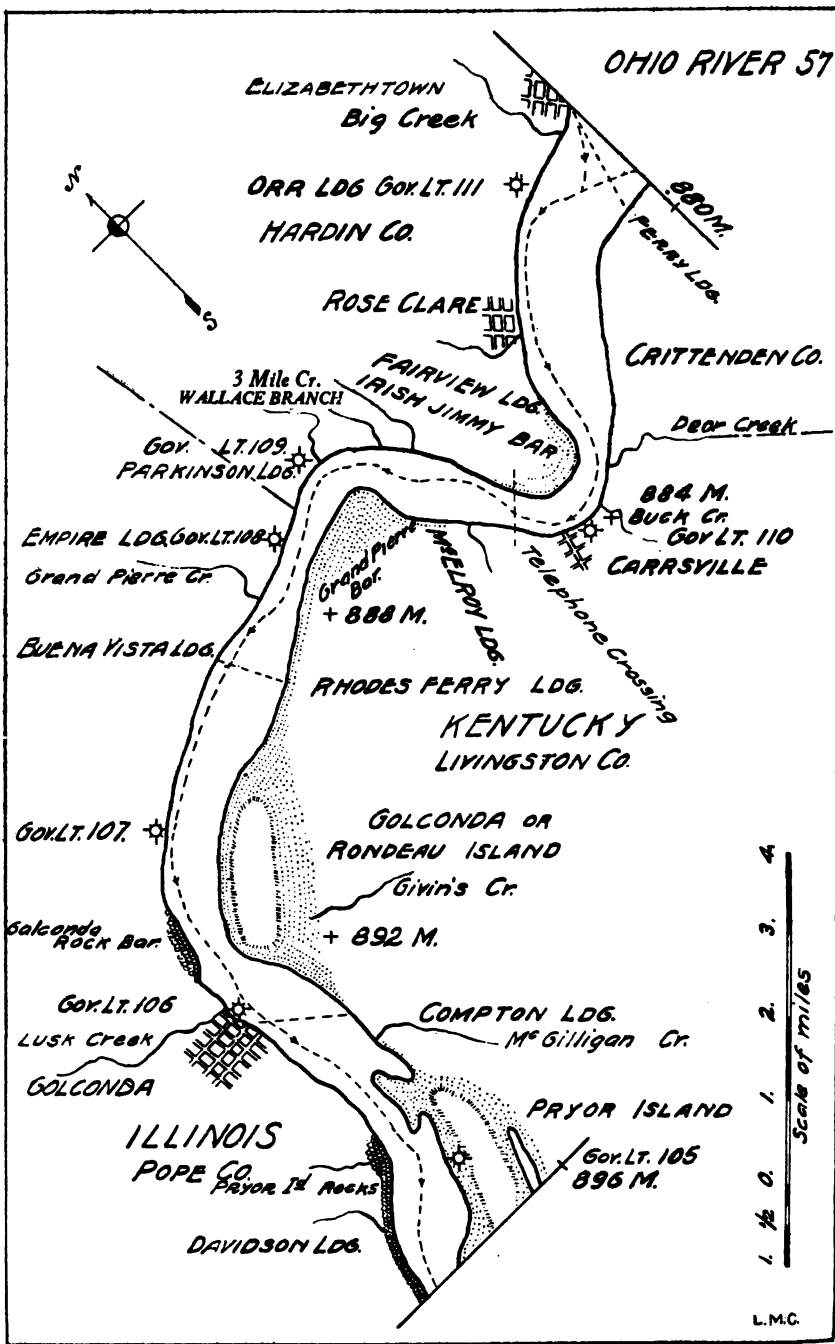


Chart No. 57.

Miles below
Pittsburgh.

BIG CREEK	RIGHT BANK	880.1
FERRY LANDING, Crittenden Co., Ky.	LEFT BANK	880.5
111. ORE LANDING LIGHT. Color White	RIGHT BANK	880.6
ORE LANDING, Hardin Co., Ill.	RIGHT BANK	880.8
ROSE CLARE, Hardin Co., Ill. (809)	RIGHT BANK	882.0
GRAND PIERRE BAR, head	LEFT BANK	882.1
FAIRVIEW LANDING, Fluor Spar & Lead Co. (200)	RIGHT BANK	882.1
IRISH JIMMY BAR, head	RIGHT BANK	882.2
DEER CREEK	LEFT BANK	882.5
County Line, Crittenden-Livingston, Ky.		
BUCK CREEK	LEFT BANK	884.1
110. CARBESVILLE LIGHT. Color White	LEFT BANK	884.4
CARBESVILLE, Livingston Co., Ky. (298)	LEFT BANK	884.5
IRISH JIMMY BAR, foot	RIGHT BANK	885.0
TELEPHONE LINE CROSSING		885.2
McELROY LANDING	LEFT BANK	886.2
THREE MILE CREEK	RIGHT BANK	886.2
WALLACE BRANCH	RIGHT BANK	886.7
109. PARKINSON LANDING LIGHT. Color White	RIGHT BANK	887.0
PARKINSON LANDING, Hardin Co., Ill.	RIGHT BANK	887.0
Channel follows right (Illinois) shore to Light No. 108.		
COUNTY LINE, Hardin-Pope, Ill.	RIGHT BANK	887.8
108. EMPIRE LANDING LIGHT. Color White	RIGHT BANK	887.6
EMPIRE LANDING, Pope Co., Ill.	RIGHT BANK	887.6
GRAND PIERRE CREEK	RIGHT BANK	888.2
GRAND PIERRE BAR, foot	LEFT BANK	888.2
BUENA VISTA LANDING, Pope Co., Ill.	RIGHT BANK	888.3
RHODES FERRY LANDING, Livingston Co., Ky.	LEFT BANK	888.8
GOLCONDA or BONDEAU or RANDOLPH ISLAND, head of bar	LEFT OF CHANNEL	890.4
Channel to right of island near Illinois shore.		
107. BONDEAU ISLAND LIGHT. Color White	RIGHT OF CHANNEL	890.8
GOLCONDA ROCK BAR	RIGHT BANK	891.5
GIVINS CREEK	LEFT BANK	891.7
GOLCONDA or BONDEAU or RANDOLPH ISLAND, foot of bar	LEFT OF CHANNEL	891.9
LUSK CREEK	RIGHT BANK	892.3
106. GOLCONDA LIGHT (wharf boat). Color White with Red Front	RIGHT BANK	892.4
GOLCONDA, Pope Co., Ill. (1,688)	RIGHT BANK	892.6
Railroad: Illinois Central.		
COMPTON LANDING, Livingston Co., Ky.	LEFT BANK	893.2
McGILLIGAN CREEK	LEFT BANK	893.4
PRYOR ISLAND, head of bar	LEFT OF CHANNEL	894.0
PRYOR ISLAND ROCKS	RIGHT BANK	894.2
105. PRYOR ISLAND LIGHT, on island. Color White	LEFT OF CHANNEL	895.4
DAVIDSON LANDING, Pope Co., Ill.	RIGHT BANK	896.0

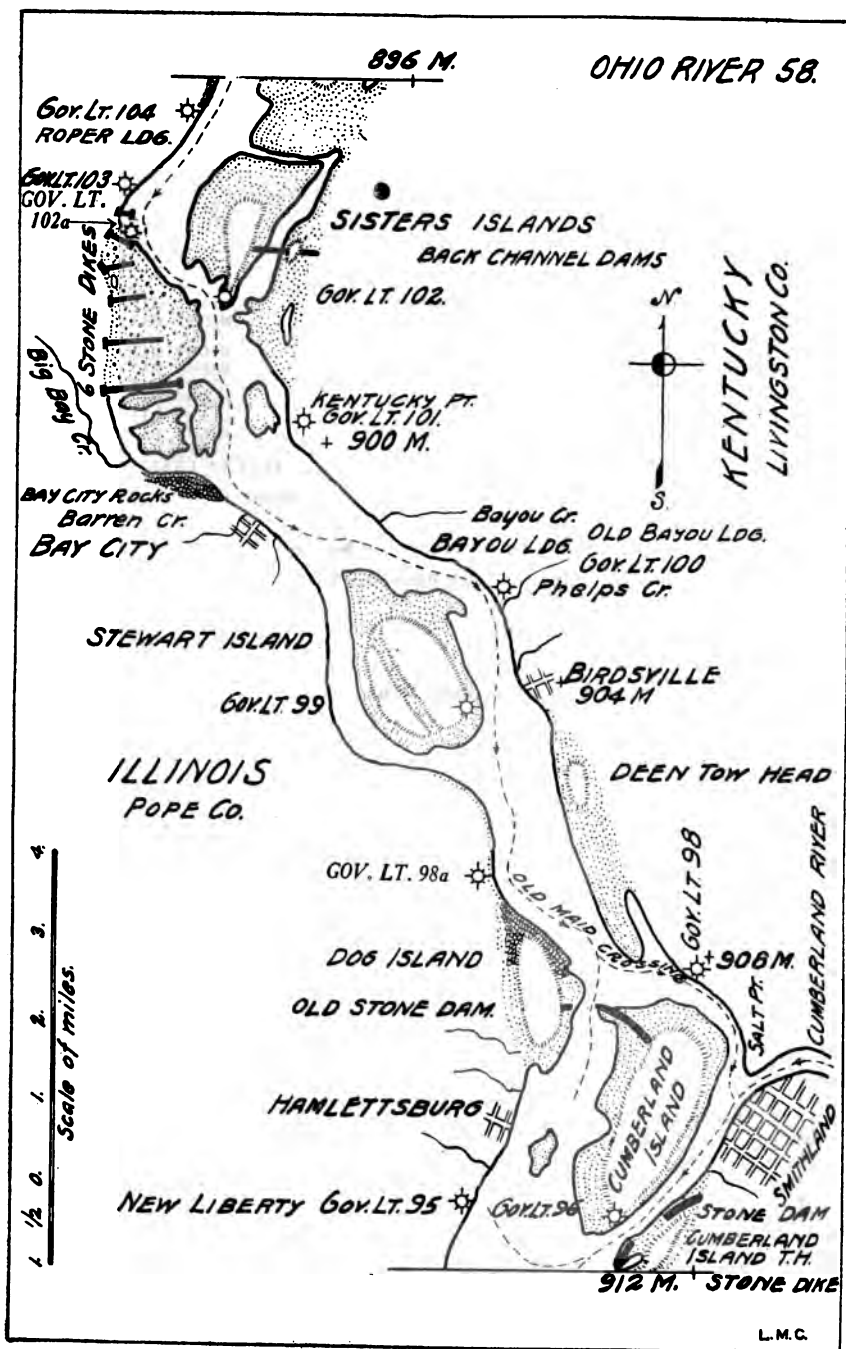


Chart No. 58.

Miles below
Pittsburgh.

PRYOR ISLAND, foot of timber.....	LEFT OF CHANNEL	896.1
104. LOVERS LEAP LIGHT. Color White.....	RIGHT BANK	896.8
ROPER LANDING, Pope Co., Ill.....	RIGHT BANK	896.8
SISTERS ISLANDS, timber at head.....	LEFT OF CHANNEL	897.8
N. B.—Channel at right of island toward Light No. 103. The back channels (between the two islands and the inner island and Kentucky shore) are now being closed by stone dams and can not be used except at high stages of the river.		
108. ROPER LANDING LIGHT. Color White.....	RIGHT BANK	898.1
Channel makes a long curve toward Light No. 102 on island.		
STONE SPUR DIKE, 250 feet long, from Illinois shore.....	RIGHT BANK	898.2
GRAVEL BAR from Illinois shore, head.....	RIGHT BANK	898.4
102a. SISTERS FLOAT LIGHT No. 1. Color White.....	RIGHT OF CHANNEL	898.4
STONE SPUR DIKE, 708 feet long, from Illinois shore.....	RIGHT BANK	898.5
STONE SPUR DIKE, 1,140 feet long, from Illinois shore.....	RIGHT BANK	898.6
102. SISTERS LIGHT No. 2, foot of Island. Color White.....	LEFT OF CHANNEL	898.9
Channel leads down toward Bay City on the Illinois shore.		
STONE SPUR DIKE, 1,350 feet long, from Illinois shore.....	RIGHT BANK	898.9
STONE SPUR DIKE, 1,585 feet long, from Illinois shore.....	RIGHT BANK	898.9
STONE SPUR DIKE, 1,700 feet long, from Illinois shore.....	RIGHT BANK	899.5
BIG BAY CREEK.....	RIGHT BANK	899.7
BAY CITY ROCKS.....	RIGHT BANK	899.8
101. KENTUCKY POINT LIGHT. Color White.....	LEFT BANK	899.9
Opposite this light the channel runs between two bars.		
BARREN CREEK.....	RIGHT BANK	900.1
BAY CITY, Pope Co., Ill (60).....	RIGHT BANK	900.5
Channel crosses to Light No. 100, Kentucky shore.		
BAYOU CREEK.....	LEFT BANK	901.3
OLD BAYOU LANDING, Livingston Co., Ky.....	LEFT BANK	901.3
BAYOU LANDING, Livingston Co., Ky.....	LEFT BANK	901.7
STEWART ISLAND, head.....	RIGHT OF CHANNEL	902.0
100. STEWART ISLAND LIGHT No. 2. Color White.....	LEFT BANK	902.9
Channel crosses toward Light No. 99, foot of island.		
PHELPS CREEK.....	LEFT BANK	903.1
BIRDSVILLE, Livingston Co., Ky. (160).....	LEFT BANK	903.8
99. STEWART ISLAND LIGHT No. 1, on island. Color White.....	RIGHT OF CHANNEL	904.0
Channel continues crossing to Light No. 98a, Illinois shore.		
STEWART ISLAND, foot.....	RIGHT OF CHANNEL	904.2
DEEN TOWHEAD, head.....	LEFT BANK	905.2
Close to Kentucky shore. The towhead about 0.2 mile in length, below which a sand bar extends downstream for about 2 miles.		
98a. VICKER LANDING LIGHT. Color White.....	RIGHT BANK	906.2
Channel makes out toward foot of long sand bar on Kentucky shore above Light No. 98.		
DOG ISLAND, head.....	RIGHT OF CHANNEL	907.5
Along Illinois shore. Island a little more than 1 mile long.		
98. OLD MAID CROSSING LIGHT. Color White.....	LEFT BANK	908.0
Channel for some distance close to left bank (Kentucky shore) then curves out toward head of Cumberland Island.		
STONE DAM CURVING from Dog Island to Cumberland Island.....		908.4
Original length, 2,970 feet. The present low-water channel follows Kentucky shore and passes into the outlet of Cumberland River, between Cumberland Island and Kentucky shore. In moderately high stages boats can pass through the opening in the stone dam between Dog and Cumberland Islands. (For lights and towns on this channel see hereafter.)		
SALT POINT.....	LEFT BANK	909.8
CUMBERLAND RIVER, Mouth.....	LEFT BANK	909.8
(For Cumberland River, see Tributary streams.)		
SMITHLAND, Livingston Co., Ky. (557).....	LEFT BANK	909.9
STONE TRAINING DIKE from Kentucky shore, 1,650 feet long, head.....	LEFT BANK	911.4
CUMBERLAND ISLAND TOWHEAD, head.....	LEFT BANK	911.4
Towhead about 1 mile long.		
CUMBERLAND ISLAND, foot.....	RIGHT OF CHANNEL	911.8
96. CUMBERLAND ISLAND LIGHT (on island). Color White.....	RIGHT OF CHANNEL	911.8
STONE TRAINING DIKE from Kentucky shore, 1,040 feet long.....	LEFT BANK	911.8
(At this point the description returns to the stone dam between Dog and Cumberland Islands, in what is in reality the main channel of the Ohio River. Mileage of dam, 908.4.)		
HAMLETTSBURG, Pope Co., Ill. (215).....	RIGHT BANK	910.5
95. NEW LIBERTY LIGHT. Color White.....	RIGHT BANK	912.0

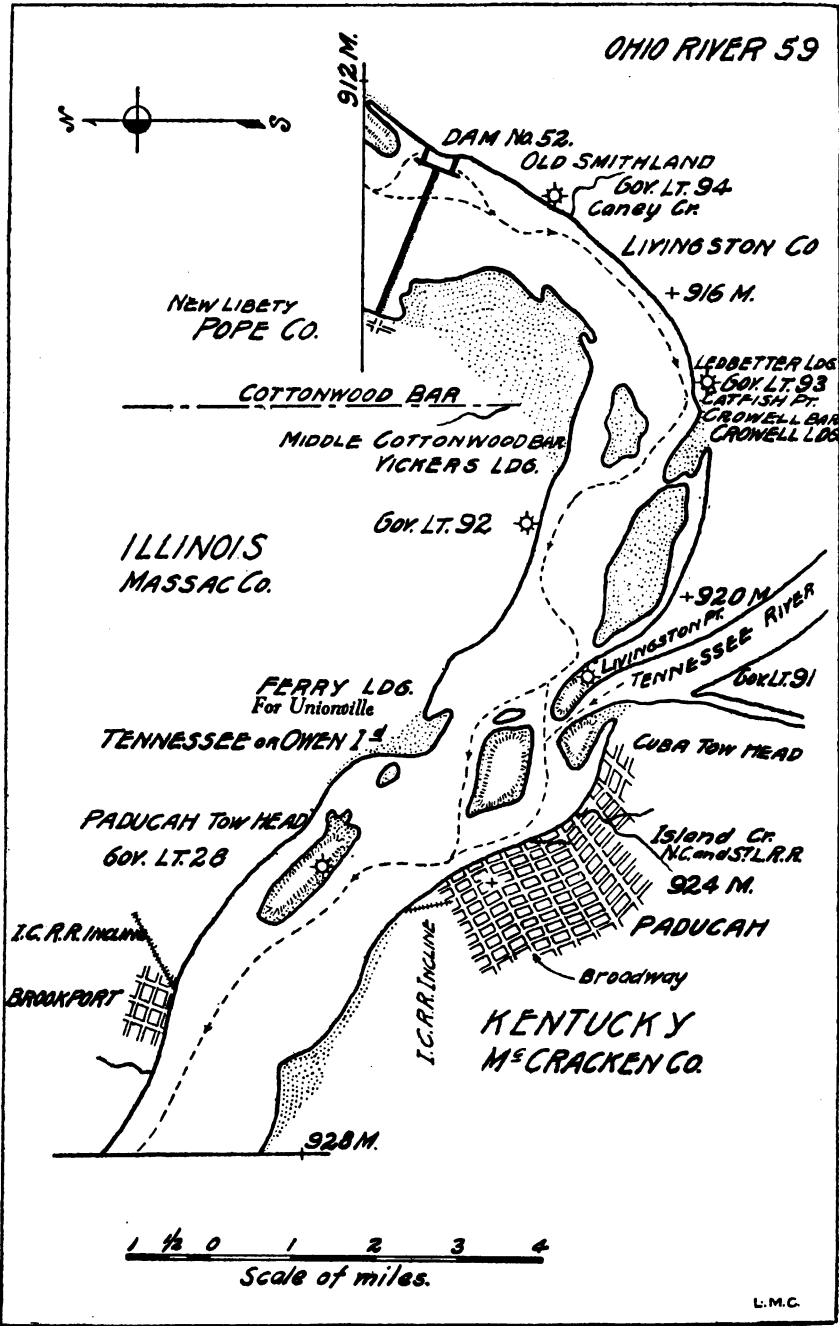


Chart No. 59.

Miles below
Pittsburgh.

NEW LIBERTY, Pope Co., Ill. (102)-----	RIGHT BANK	912.1
OHIO RIVER DAM No. 82-----		913.3
Site adopted, but construction not yet begun. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note directions and cautions as in case of Dam No. 1, p. 25.		
COTTONWOOD BAR along Illinois shore, head-----	RIGHT BANK	913.5
94. OLD SMITHLAND LIGHT. Color White-----	LEFT BANK	914.4
CANEY CREEK-----	LEFT BANK	914.7
Channel follows Kentucky shore to Light No. 93.		
93-a. MORRISONS LANDING LIGHT. Color White-----	LEFT BANK	915.9
93-b. COTTONWOOD FLOAT LIGHT No. 5. Color White-----	RIGHT BANK	916.5
COUNTY LINE, Pope-Massac, Ill.-----	RIGHT BANK	916.9
LEDBETTER LANDING, Livingston Co., Ky.-----	LEFT BANK	917.1
93-a. COTTONWOOD FLOAT LIGHT No. 5. Color White-----	RIGHT BANK	917.1
MIDDLE COTTONWOOD BAR, head-----	RIGHT OF CHANNEL	917.3
Length of bar about 1 mile.		
GROWELL BAR from Kentucky shore, head-----	LEFT BANK	917.7
Bar about 1.4 miles long.		
93. KINCAID LANDING LIGHT. Color White-----	RIGHT BANK	917.6
Least depth low water. Channel depth opposite this light about 3.5 feet. Channel crosses over toward Light No. 92, Illinois shore.		
GROWELL LANDING, Livingston Co., Ky.-----	LEFT BANK	918.0
VICKERS LANDING, Massac Co., Ill.-----	RIGHT BANK	918.1
92. COTTONWOOD BAR LIGHT No. 1. Color White-----	RIGHT BANK	919.3
Channel curves out and crosses toward Light No. 91 on Kentucky shore.		
91. LIVINGSTON POINT LIGHT. Color White-----	LEFT BANK	921.3
FERRY LANDING, for UNIONVILLE, Massac Co., Ill.-----	RIGHT BANK	921.5
LIVINGSTON POINT-----	LEFT BANK	921.8
TENNESSEE RIVER, mouth-----	LEFT BANK	922.0
(For Tennessee River, see Tributary streams.)		
COUNTY LINE, Livingston-McCracken, Ky.-----	LEFT BANK	922.0
TENNESSEE or OWEN ISLAND, head-----	RIGHT BANK	922.3
CUBA TOWHEAD, foot-----	LEFT BANK	922.5
ISLAND CREEK-----	LEFT BANK	922.9
RAILWAY TRANSFER INCLINE, N. C. & St. L. R. R.-----	LEFT BANK	923.3
TENNESSEE or OWEN ISLAND, foot-----	LEFT OF CHANNEL	923.8
PADUCAH, county seat of McCracken Co., Ky. (22,760), Broadway St.-----	LEFT BANK	924.1
Railroads: Ill. Central; Nash. Chatt. & St. L.; Burlington Route. Local electric lines. Local as well as through Ohio and Tennessee River packets. Industries: Banking and general mercantile business; tobacco warehouses and tobacco manufacturing; manufacture of furniture, shoes, woolen goods, and flour, pork packing. Channel crosses over toward Light No. 28 on towhead.		
PADUCAH TOWHEAD BAR, head-----	RIGHT OF CHANNEL	924.6
Towhead about 1.2 miles long.		
RAILWAY TRANSFER INCLINE, Ills. Cent. R. R.-----	LEFT BANK	925.0
28. PADUCAH TOWHEAD LIGHT. Color White-----	RIGHT OF CHANNEL	925.3
Channel draws in toward Illinois shore and follows same to Light No. 27.		
RAILWAY TRANSFER INCLINE, Illinois Central R. R.-----	RIGHT BANK	926.3
BROOKPORT, Massac Co., Ill. (1,442)-----	RIGHT BANK	926.9
Extensive shipping point for railroad ties.		

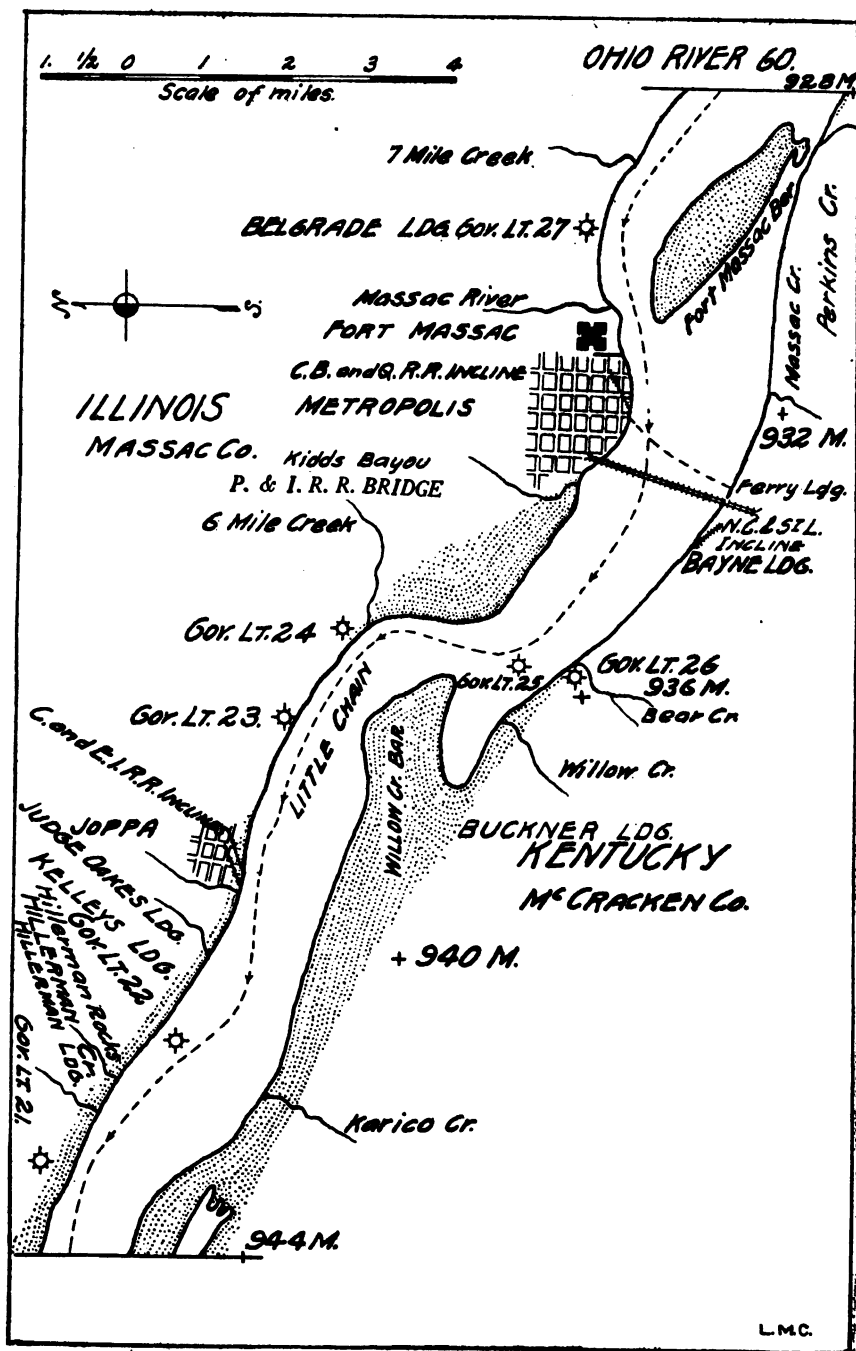


Chart No. 60.

Miles below
Pittsburgh.

PERKINS CREEK	LEFT BANK	928.7
FORT MASSAC BAR on Kentucky shore, head	LEFT OF CHANNEL	928.8
This bar is about 2.5 miles long.		
SEVEN MILE CREEK	RIGHT BANK	929.7
27. BELGRADE LIGHT. Color White	RIGHT BANK	930.4
BELGRADE LANDING, Massac Co., Ill.	RIGHT BANK	930.4
MASSAC BAR, foot	LEFT OF CHANNEL	931.3
MASSAC RIVER	RIGHT BANK	931.4
FORT MASSAC, Massac Co., Ill.	RIGHT BANK	931.5
The site of the fort has been made a public reservation, with an appropriate monument, etc.		
MASSAC CREEK	LEFT BANK	931.9
RAILWAY TRANSFER INCLINE, C. B. & Q. R. R.	RIGHT BANK	932.6
METROPOLIS, county seat of Massac Co., Ill. (4,655)	RIGHT BANK	932.9
Industries: Banking and general mercantile business, sawmill and veneer works. Channel makes out gradually to about middle of river opposite Float Light No. 25.		
FERRY LANDING, Metropolis Ferry	RIGHT BANK	933.0
FERRY LANDING, Metropolis Ferry	LEFT BANK	933.1
PADUCAH & ILLINOIS R. R. METROPOLIS Bridge		933.3
Under construction. Channel span, 700 feet; height, 105.5 feet.		
RAILWAY TRANSFER INCLINE, N. C. & St. L.	LEFT BANK	933.6
KIDDS BAYOU	RIGHT BANK	933.7
BAYNE LANDING, McCracken Co., Ky.	LEFT BANK	934.1
BEAR CREEK	LEFT BANK	935.9
26. LITTLE CHAIN LIGHT No. 4. Color White	LEFT BANK	935.9
25. LITTLE CHAIN FLOAT LIGHT No. 2. Color White	LEFT OF CHANNEL	936.4
Channel crosses to Light No. 24 on Illinois shore. Least water on this crossing sometimes 1.5 feet.		
WILLOW CREEK BAR from Kentucky shore, head	LEFT BANK	936.6
SIX MILE CREEK	RIGHT BANK	936.6
WILLOW CREEK	LEFT BANK	936.9
24. LITTLE CHAIN LIGHT No. 3. Color White	RIGHT BANK	937.0
Channel follows Illinois shore to Joppa.		
LITTLE CHAIN		937.0
BUCKNER LANDING, McCracken Co., Ky.	LEFT BANK	938.0
23. LITTLE CHAIN LIGHT No. 1. Color White	RIGHT BANK	938.2
JOPPA, Massac Co., Ill. (784)	RIGHT BANK	940.1
Channel makes out to middle of river and then returns to Illinois shore.		
RAILWAY TRANSFER INCLINE, Upper, C. & E. I. R. R.	RIGHT BANK	940.5
RAILWAY TRANSFER INCLINE, Lower, C. & E. I. R. R.	RIGHT BANK	940.6
JUDGE OAKES LANDING, Massac Co., Ill.	RIGHT BANK	940.7
KELLEYS LANDING, Massac Co., Ill.	RIGHT BANK	941.2
KARICO CREEK	LEFT BANK	941.2
22. HILLERMAN ROCK FLOAT LIGHT No. 3. Color White	RIGHT OF CHANNEL	942.2
HILLERMAN CREEK	RIGHT BANK	942.6
HILLERMAN LANDING, Massac Co., Ill.	RIGHT BANK	942.7
21. HILLERMAN ROCK LIGHT No. 1. Color White	RIGHT BANK	944.0

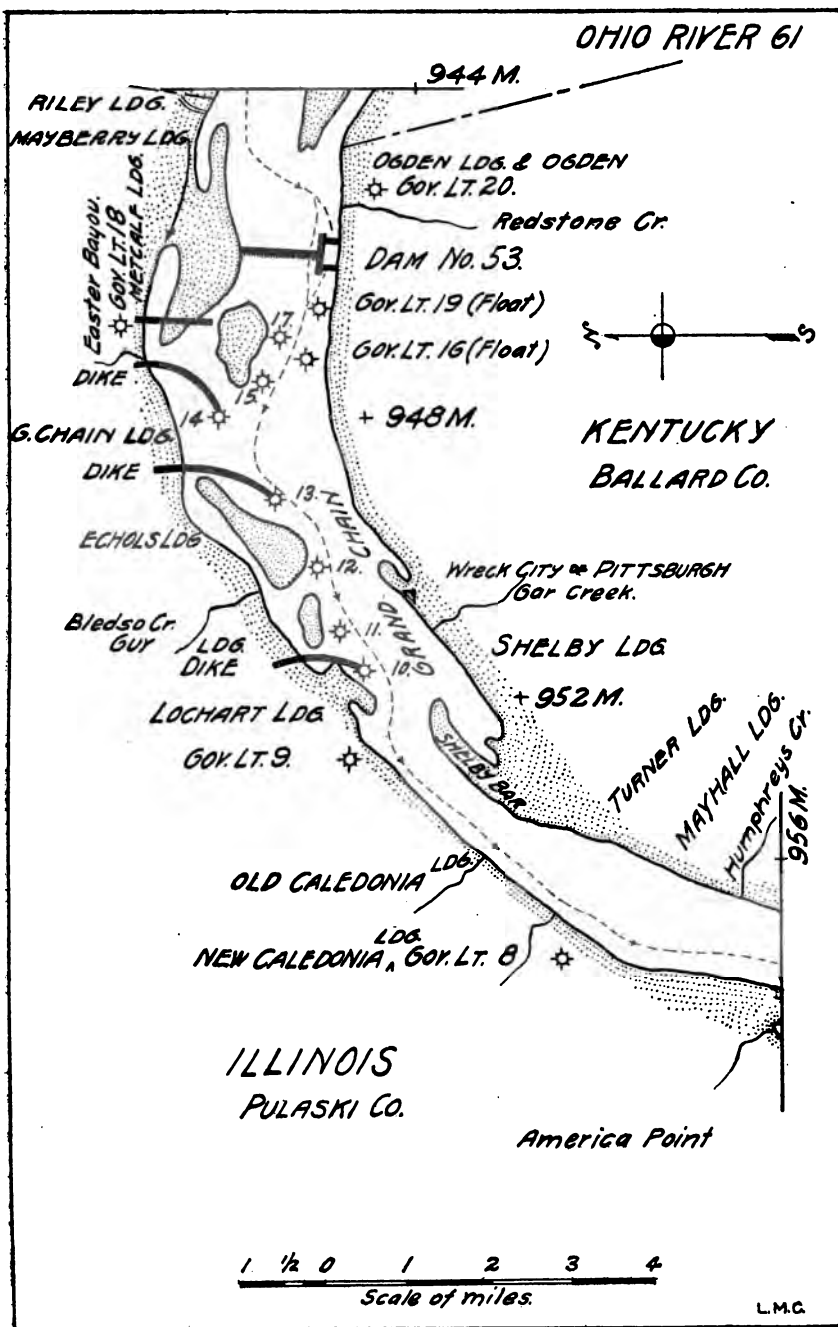


Chart No. 61.

Miles below
Pittsburgh.

COUNTY LINE, McCracken-Ballard, Ky.	LEFT BANK	944.8
COUNTY LINE, Massac-Pulaski, Ill.	RIGHT BANK	944.8
RILEY LANDING, Pulaski Co., Ill.	RIGHT BANK	944.8
OGDEN LANDING, Ballard Co., Ky.	LEFT BANK	945.1
OGDEN, Ballard Co., Ky. (80)	LEFT BANK	945.1
Channel, after approaching Kentucky shore, curves outward and passes to the right of Float Light 19. Navigation difficult and care necessary in passing the chain. During high and even moderate stages of the river there is fair channel down the Kentucky shore from Ogdens landing to foot of lower timber dike.		
20. HOLMAN FIELD LIGHT. Color White.	LEFT BANK	945.3
REDSTONE CREEK	LEFT BANK	945.5
OHIO RIVER DAM No. 53.		946.0
Site adopted but construction not yet begun. When completed, lock on left bank; length, 600 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion note directions and caution as in case of Dam No. 1, p. 25.		
MAYBERRY LANDING, Pulaski Co., Ill.	RIGHT BANK	946.4
19. GRAND CHAIN FLOAT LIGHT No. 4. Color Red.	LEFT OF CHANNEL	946.7
STONE SPUR DIKE, 1,250 feet long, from right bank.	RIGHT BANK	946.8
Below this dike, between its outer end and the Illinois shore, are many large rocks, the remains, as believed, of hills or low mountains which once crossed the valley; these rocks extend downstream to below the lower timber dike.		
18. GRAND CHAIN LIGHT No. 17. Illinois shore near dike. Color White.		
	RIGHT BANK	946.9
METCALF LANDING, Pulaski Co., Ill.	RIGHT BANK	947.0
17. GRAND CHAIN FLOAT LIGHT No. 15. Color Black.	RIGHT OF CHANNEL	947.2
From Light No. 17 to Light No. 10, channel keeps near end of dike, except as indicated on map.		
EASTER BAYOU	RIGHT BANK	947.3
TIMBER CRIB TRAINING DIKE, from Illinois shore, 3,007 feet long; shore end.		
	RIGHT BANK	947.4
16. GRAND CHAIN FLOAT LIGHT No. 2. Color Red.	LEFT OF CHANNEL	947.4
15. GRAND CHAIN FLOAT LIGHT No. 13. Color White.	RIGHT OF CHANNEL	947.7
14. GRAND CHAIN FLOAT LIGHT No. 11 (end of timber dike). Color White.		
	RIGHT OF CHANNEL	947.9
GRAND CHAIN LANDING, Pulaski Co., Ill. (500)	RIGHT BANK	948.0
TIMBER CRIB TRAINING DIKE, from Illinois shore, 3,006 feet long; shore end.		
	RIGHT BANK	948.1
13. GRAND CHAIN FLOAT LIGHT No. 9 (end of timber dike). Color White.		
	RIGHT OF CHANNEL	948.6
During high stages of the river this light is moved over and set as a bank light on Kentucky shore nearly opposite the dike it marks at low water.		
ECHOLS LANDING, Pulaski Co., Ill.	RIGHT BANK	948.6
BLED SO CREEK	RIGHT BANK	949.3
12. GRAND CHAIN FLOAT LIGHT No. 7. Color White.	RIGHT OF CHANNEL	949.5
GUY LANDING, Pulaski Co., Ill.	RIGHT BANK	949.7
11. GRAND CHAIN FLOAT LIGHT No. 6. Color White.	RIGHT OF CHANNEL	950.0
During high stages this light is moved over and set as a bank light on Kentucky shore.		
TIMBER CRIB TRAINING DIKE, from Illinois shore, 3,233 feet long, shore end.		
	RIGHT BANK	950.0
WRECK OF STEAMER "PITTSBURG" near Kentucky shore.	LEFT BANK	950.2
10. GRAND CHAIN FLOAT LIGHT No. 3 (end of timber dike). Color white.		
	RIGHT OF CHANNEL	950.4
Channel makes in toward Illinois shore (Light No. 9).		
LOCHARTS LANDING, Pulaski Co., Ill.	RIGHT BANK	950.6
GAR CREEK	LEFT BANK	950.7
SHELBY BAR, from left (Kentucky) shore.	LEFT BANK	950.9
9. GRAND CHAIN LIGHT No. 1. Color White.	RIGHT BANK	951.2
Channel follows Illinois shore as far as America Point on right bank.		
SHELBY LANDING, Ballard Co., Ky.	LEFT BANK	951.4
OLD CALEDONIA LANDING, Pulaski Co., Ill.	RIGHT BANK	951.3
TURNER LANDING, Ballard Co., Ky.	LEFT BANK	951.7
SHELBY BAR from left (Kentucky) shore, foot.	LEFT BANK	951.8
NEW CALEDONIA LANDING, Pulaski Co., Ill.	RIGHT BANK	954.2
8. NEW CALEDONIA LIGHT. Color White.	RIGHT BANK	954.3
WAYHALE LANDING, Ballard Co., Ky.	LEFT BANK	954.7
HUMPHREYS CREEK	LEFT BANK	955.6
AMERICA POINT	RIGHT BANK	956.0

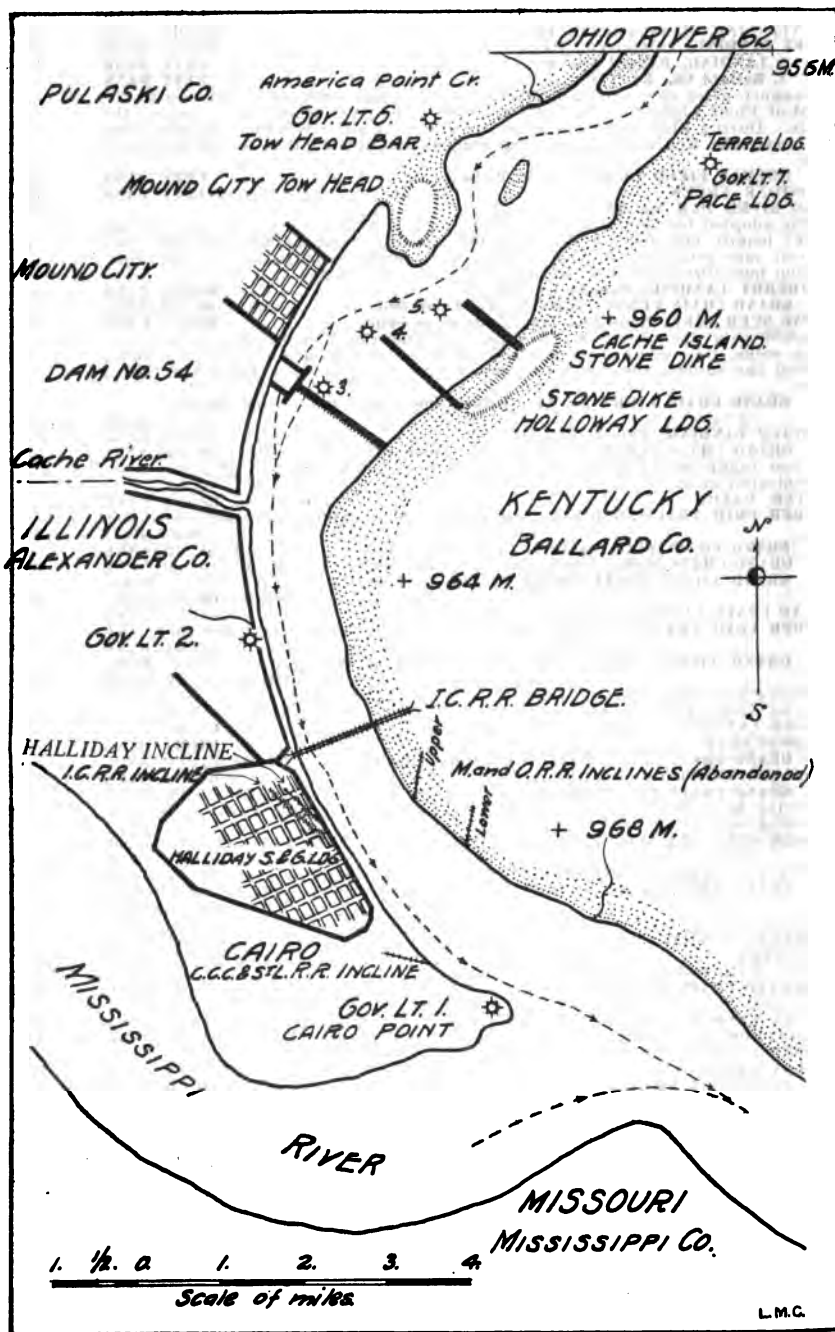


Chart No. 62.

Miles below
Pittsburgh.

TERRER LANDING, Ballard Co., Ky.	LEFT BANK	957.7
7. TERRER LANDING LIGHT. Color White.	LEFT BANK	957.7
AMERICA POINT CREEK	RIGHT BANK	957.7
PAGE LANDING, Ballard Co., Ky.	LEFT BANK	958.0
6. AMERICA POINT LIGHT. Color White.	RIGHT BANK	959.4
Channel curves out to pass on right of towhead.		
CACHE ISLAND near Kentucky shore.	LEFT OF CHANNEL	959.4
MOUND CITY TOWHEAD, near Illinois shore.	RIGHT OF CHANNEL	960.8
STONE SPUR DIKE from Kentucky shore 2,100 feet long.	LEFT BANK	960.9
MOUND CITY TOWHEAD, foot.	RIGHT OF CHANNEL	961.1
5. MOUND CITY FLOAT LIGHT No. 6. Color Red.	LEFT OF CHANNEL	961.1
Below upper spur dike. Channel curves to right bank near lower end of Mound City.		
TOWHEAD BAR, from Illinois shore, foot.	RIGHT OF CHANNEL	961.1
4. MOUND CITY FLOAT LIGHT No. 4. Color Red.	LEFT OF CHANNEL	961.5
Below lower spur dike.		
MOUND CITY, Pulaski Co., Ill. (2,827).	RIGHT BANK	961.6
Interests: Banking and general merchandising, sawmills, etc.; veneer works, shipbuilding (marine ways), box factory. Gunboats were built here during the Civil War. Railroads: C. C. C. & St. L.; Ill. Central. Electric line to Cairo and Mounds, Ill.		
STONE SPUR DIKE from Kentucky shore, 2,490 feet long.	LEFT BANK	961.7
CACHE ISLAND, foot.	LEFT OF CHANNEL	961.7
HOLLOWAY LANDING, Ballard Co., Ky.	LEFT BANK	961.8
3. MOUND CITY FLOAT LIGHT No. 2. Color Red.	LEFT OF CHANNEL	962.4
Channel follows Illinois shore to the Mississippi.		
OHIO RIVER DAM No. 64.		962.4
Site adopted but construction not yet begun. When completed, lock on right bank; length, 800 feet; width, 110 feet; width of navigable pass, 800 feet. Special care necessary in passing dam while under construction. After completion, note directions and caution as in case of Dam No. 1, p. 25.		
CACHE RIVER	RIGHT BANK	962.2
COUNTY LINE, Pulaski-Alexander Co., Ill.	RIGHT BANK	962.2
2. FUTURE CITY LIGHT. Color White.	RIGHT BANK	964.5
ILLINOIS CENTRAL R. R. Bridge.		965.4
Channel span, 503 feet; height, 105.2 feet.		
HALLIDAY SAND & GRAVEL CO.'S LANDING, INCLINE.	RIGHT BANK	966.2
RAILWAY TRANSFER INCLINE, M. & O. R. R. (discontinued).	LEFT BANK	966.2
RAILWAY TRANSFER INCLINE, I. C. R. R.	RIGHT BANK	966.4
CAIRO, county seat of Alexander Co., Ill. (14,549).	RIGHT BANK	966.8
Interests: Banking and general mercantile business; machine shops and foundries; sawmill and planing mills; furniture. Distributing station for refined oils; flour mills; grain elevators. Railroads: Illinois Central; C. C. C. & St. L.; Mobile & Ohio; St. L. Iron Mt. & Southern; St. L. S. Western. Ferries to Kentucky and Missouri. Electric lines local and to Mound City and Mounds, Ill. An important point for Ohio and Mississippi River packets.		
RAILWAY TRANSFER INCLINE, M. & O. R. R. (discontinued).	LEFT BANK	967.8
RAILWAY TRANSFER INCLINE, C. C. C. & St. L. R. R. (discontinued).	RIGHT BANK	967.7
Passengers transferred to Cotton Belt R. R. at Bird Point; cars no longer moved by this route.		
CAIRO POINT—Meeting of the Ohio and Mississippi Rivers.	RIGHT BANK	968.5
1. CAIRO POINT DAYMARK. Color White.	RIGHT BANK	968.5

OHIO RIVER IMPROVEMENT.

The improvement of western rivers by the building of training dikes and the consequent contraction of the channel was suggested by Gen. Richard Butler in the autumn of 1785. Referring to the Great Miami, the general wrote:

"but the bed being broad it is generally shallow, but this may be helped as the bottom is not very, or generally, rocky, but gravelly, and by throwing a curtain of rocks, starting down the river on one or both sides of a shoal, so as to collect the water to a focus, whereby a channel fit to take up boats may be made, this will continue always good with a small annual repair after the spring freshets and will render the boat navigation of *this and all other streams of a similar kind* useful at all seasons, as in low water it will be practicable, and in high water easy and certain."

The plan suggested by Gen. Butler was essentially the same as that first adopted for the improvement of certain shoal places in the Ohio River.

On December 9, 1803, the Legislature of Kentucky passed a resolution inviting the State of Ohio to join in the removal of the obstructions to navigation of the rapids of the Ohio River.

To this invitation the Ohio Legislature responded on December 24, 1804, approving "the laudable motive and friendly intentions of the Legislature of the State of Kentucky" but regretting "the inability of the State of Ohio (owing to the present state of its revenues) to cooperate, at this time, with the State of Kentucky, in a measure so highly interesting to the two States and of so much importance to the community generally."

The State of Ohio, however, again responded to the invitation of Kentucky to join in the improvement of the Ohio River in 1806. On January 27 of that year, the legislature passed "An act authorizing the governor to appoint commissioners for the purpose of exploring the rapids of the River Ohio."

The bill provided for the appointment of two commissioners—

"to act in conjunction with such commissioners as may be appointed by the States of Pennsylvania, Virginia, and Kentucky for the purpose of exploring the Rapids of the River Ohio and consider the proper means of opening and improving the navigation of the same."

Again on January 27, 1817, the Legislature of Ohio by joint resolution requested the States of Pennsylvania, Virginia, Kentucky, and Indiana, to unite with Ohio in appointing commissioners to examine the Ohio River, and submit a report of its condition and the amount of money required to improve its navigation; the Senators and Representatives in Congress were at the same time urged to use their best endeavors to procure a portion of any fund which might be provided by the Federal Government for the improvement of internal navigation. Pennsylvania, Virginia, and Kentucky joined in the movement thus inaugurated. Commissioners from the four States submitted a report with sketches of all bars between Pittsburgh and Louisville on November 2, 1819. The commissioners also suggested two routes for a lateral canal at the falls of the Ohio, and further recommended that each of the four States contribute \$10,000 for use on the river at large. No action was taken on this report, but an interest had been created which brought definite results a few years later in the way of appropriations.

President Monroe in his annual message dated December 7, 1824, alludes to the Federal act of the prior session which contained provisions for the improvement of the Ohio and Mississippi Rivers, stating that "the superintendence of them has been assigned to officers of the Corps of Engineers."

By act approved May 24, 1824, Congress provided for the improvement of certain sand bars in the Ohio River, and for this purpose made an appropriation of \$75,000—

That the President of the United States be, and he is hereby, authorized to cause the navigation of the Ohio River to be improved over the following sand bars, or either of them, at his discretion, to wit:

The sand bar which crosses said river, $1\frac{1}{2}$ miles below Flint Island;

The sand bar 2 miles above French Island;

The bar just below Henderson;

The bar below Straight Island;

The bar below Willow Island, in the Mississippi bend;

And the bar opposite to lower Smithland, below Cumberland Island.

The act above cited appears to have been directed more particularly to the removal of trees, commonly called "planters, sawyers, or snags"; if Congress then proposed a more extensive improvement of the river, the method to be employed was wisely left to executive officers.

By act of May 13, 1826, the Secretary of the Treasury was authorized to subscribe for or purchase—

"not exceeding one thousand shares of the capital stock of the Louisville and Portland Canal Company. * * * *Provided*, Said shares can be procured for a sum not exceeding one hundred dollars each."

In the act of March 3, 1827, besides providing for the removal of "all snags, sawyers, stumps, logs, and obstructions of every description," it was directed that the channel at Grand Chain should "be deepened by a *proper channel formed*, that at the usual state of the water, steamboats may be enabled safely to pass and repass the same." On March 27, 1828, a petition from "inhabitants of the State of Kentucky" was presented to Congress through the Committee on Roads and Canals. This petition begs Congress to make additional appropriation for the removal of obstructions in the Ohio River, and cites some interesting facts in support of the request, viz, that 19 valuable steamboats had been lost, in most cases with their cargoes, worth altogether \$600,000; that other boats not entirely destroyed had suffered damage to the extent of \$125,000; and that the loss to flatboats and their cargoes during 10 years past amounted to \$720,000; so that the entire loss to steamboats and barges including their lading during the 10 years preceding 1828 aggregated \$1,445,000.

The Secretary of War, under date of January 15, 1829, transmitted to Congress a report from Col. Gratiot, stating that operations for improving the navigation of the Ohio River had

"been prosecuted with advantage as far down the river as Bethlehem, within about 30 miles of Louisville; that no measures had been taken to deepen the channel at the Grand Chain."

Omitting further details of the early period of river improvement, it may be stated that in addition to the removal from the channel of many snags, stone training dikes were constructed at various bars, for the purpose of contracting the channel and increasing the scour of the river. The first dike was built near Henderson in 1825, the removal of rocks from Grand Chain was begun in 1830, dikes were

built at Scuffletown and Sisters Islands in 1831, and at French and Cumberland Islands in 1832. On the upper Ohio the first dam was that constructed at Browns Island in 1836.

Mr. Milnor Roberts, "Superintending engineer Ohio River improvement," submitted a preliminary special report on the progress of work in 1866, in which he alludes to the construction of stone wing dams by Capt. Sanders between the years of 1837 and 1844; subsequent to 1844 work had been stopped for want of further appropriations. In connection with his report on obstruction, Mr. Roberts gives a detailed list of localities at which wrecks and snags were found, aggregating 63 steamboats, 77 barges, and 166 trees, snags, etc.

The work of open channel improvement has been continued since 1866, with the result that snags and wrecks are now promptly removed from the channel, and at certain localities the channel has been materially improved by the building of wing dikes, and dams across the back channels. The dikes and dams constructed in the Ohio River since 1825 are:

Wing and training dikes.....	111
Dams in back channels.....	47
Total	158

MOVABLE DAMS.

Being persuaded that in many localities a radical improvement of the river could be secured only by the construction of locks and dams, Maj. William E. Merrill, Corps of Engineers, had made a careful study of the inland waterways of France, with the result that as early as 1874 he recommended for use on the Ohio the so-called "movable dam," which had been in successful operation for some years on the Seine, Yonne, Marne, Meuse, and other rivers of France.

The distinctive feature of the dams on these French streams is the navigable pass, filled with wickets which are comparatively narrow and movable, i. e., they can be raised or lowered at will, so that in time of high water they may be thrown down and the pass for its entire width be made part of an open river navigation. This feature was considered especially adapted to the Ohio River, with its known tendency toward sudden floods, as not only would the damage of creating local floods be avoided, but when the river was high the passes could be opened and the great coal tows could then navigate without the delay due to lockage.

After long delay the first movable dam on the Ohio River, known as the Davis Island Dam, was begun August 19, 1878, and opened to commerce October 7, 1885. Whatever fears the towboat men of the Ohio had felt in regard to this dam were quickly dissipated and Pittsburgh enjoyed for the first time in her history an ample low-water harbor for steamboats and waiting coal fleets.

In 1875 Maj. Merrill made a comprehensive report on the number and location of movable dams required to secure slackwater navigation for the entire length of the Ohio River. He adopted, tentatively, a lift of about 6 feet, and on this basis proposed the construction of 68 dams of which No. 1 was to be located at Davis Island, 4.7 miles below Pittsburgh, Pa., and No. 68 just above the mouth of Cache River above Cairo, Ill.

After repeated modification of design involving an increase in the lift of the locks, and changes in the location of the dams, based on later surveys, a project has been adopted which includes dams numbered 1 to 54, of which number, two, and perhaps more, may be eliminated in the final adjustment. While the average lift has been increased it is still quite moderate, about 76 per cent of the locks included in the project having a lift of less than 8.5 feet.

Each dam includes a lock, navigable pass, weirs, and an abutment.

Lock.—The available size of lock chamber is practically uniform throughout the entire series of dams, with the length of 600 feet, and a width of 110 feet. The lock chamber is inclosed at both ends with gates which may be of either the rolling or swinging type; it is by admitting water to, or discharging water from, the lock chamber thus closed, that the difference between the levels of the upper and the lower pool is overcome.

Navigable pass.—The width of navigable pass varies, but with the exception of No. 1, which is 559 feet, No. 19, which is 688 feet, No. 27, which is 652 feet, and No. 41, which is 648 feet, the passes are either 600, 700, 800, or 900 feet in width. The function of the navigable pass is to provide a channel for open river navigation, when the use of the dam is not required, and the wickets are down, and also to form a part of the dam by the raising of the wickets with which the pass is provided. Each wicket is 3.75 feet in width and from 15 to 18 feet in length (varying at different dams); the wickets are so arranged that there is an open space of 3 inches between adjoining wickets, these open spaces being closed when necessary by small square timbers called "needles." The wicket proper is in reality a heavy timber shutter pivoted to a linklike frame called a "horse," which in turn is pivoted to the foundation of the pass. Attached to the "horse" is a long, heavy forging called the "prop," the lower end of which rests in a groove formed of cast iron and provided with a shoulder or step. When not in use the wicket lies flat on the pass foundation at such depth below low water as to offer no obstruction to free navigation through the pass. When the wickets are to be raised for the purpose of closing the navigable pass, they are grappled for and raised one at a time by means of devices on a derrick, or, as termed, a maneuver boat. As the wicket is pulled upward and forward (i. e., upstream) the prop attached to the horse follows in its cast-iron groove until its lower end drops into place against the shoulder or step already alluded to; the prop being set in place the wicket is tipped down from a nearly horizontal to a vertical position (less 20°) with its lower edge resting against the sill of the pass and its middle braced in position by the prop. The reverse of this operation constitutes the lowering of the wicket—that is, the wicket is first pulled slightly upstream, which has the effect of disengaging the prop from its step; once out of its step the prop slides downstream in its cast-iron groove and permits the wicket to fall, and, in falling, to assume a horizontal position on top of the pass foundation.

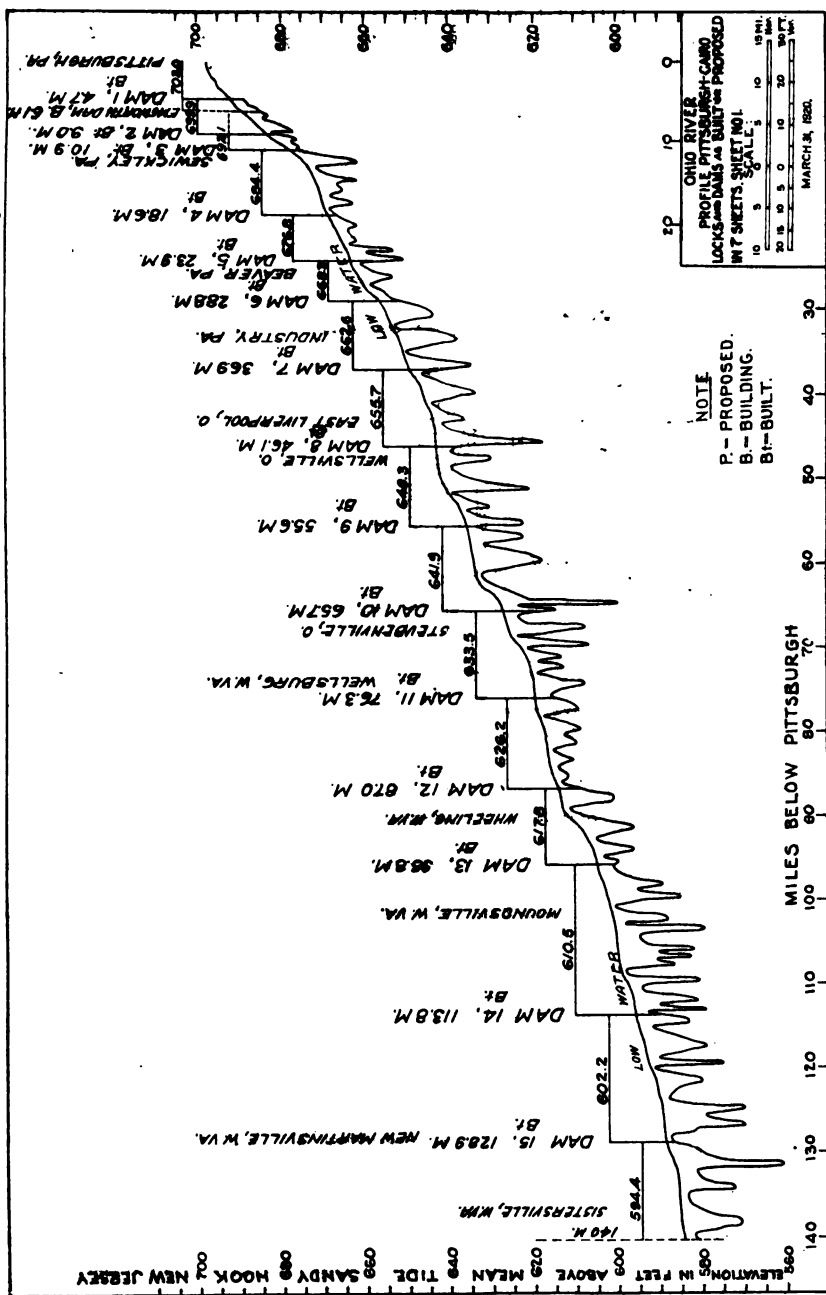
Bear traps and Chanoine weirs.—The function of the bear traps and other weirs is to regulate the pool levels within certain limits without having to resort to the lowering of the wickets in the navigable pass. The bear-trap weirs are structures of iron, steel, and wood, in two leaves, hinged at their outer ends. The lower leaf of each bear

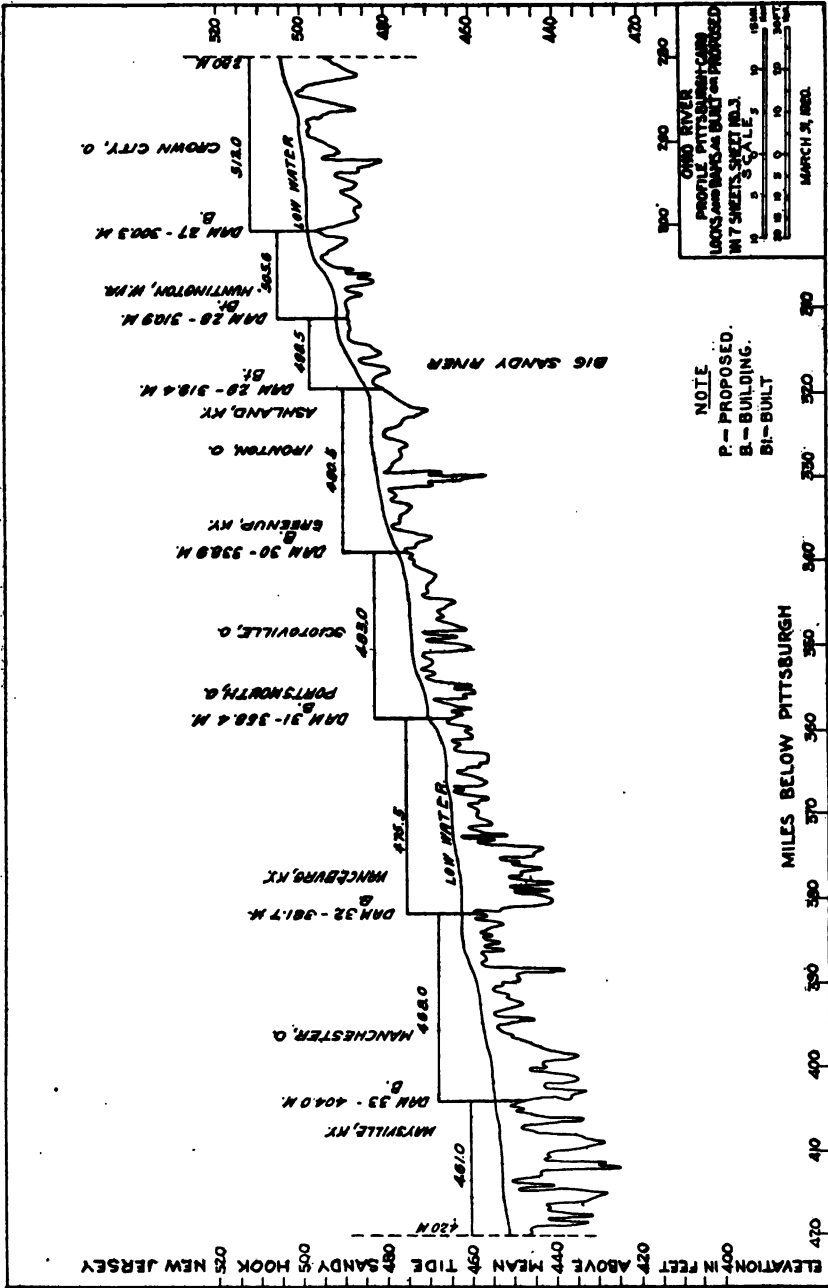
trap is a hollow structure like a pontoon, into which the air may be forced to increase its buoyancy by displacing the water. By the united effect of this buoyancy and the pressure due to hydraulic head caused by raising the wickets in the navigable pass, the lower leaf rises into position, carrying on its upper surface one edge of the upper leaf; when the bear trap is up it forms an A-like structure which was supposed to bear some resemblance to the deadfall used in trapping bears, hence the name "bear trap." The bear traps are usually two in number and are operated quickly and independently of each other to form a waste weir, so that the flow of water over the crest of the dam may be regulated with great nicety. Besides the bear-trap weirs, most of the Ohio River dams have a section of Chanoine weir, which is merely a repetition of the navigable pass, with its sill placed at a higher level and having in consequence its wickets of shorter length; the Chanoine weir is usually provided with a service bridge from which the wickets are raised and lowered. The Chanoine weir may be used like the bear traps to regulate the pool levels, but it is not essential to the operation of a dam.

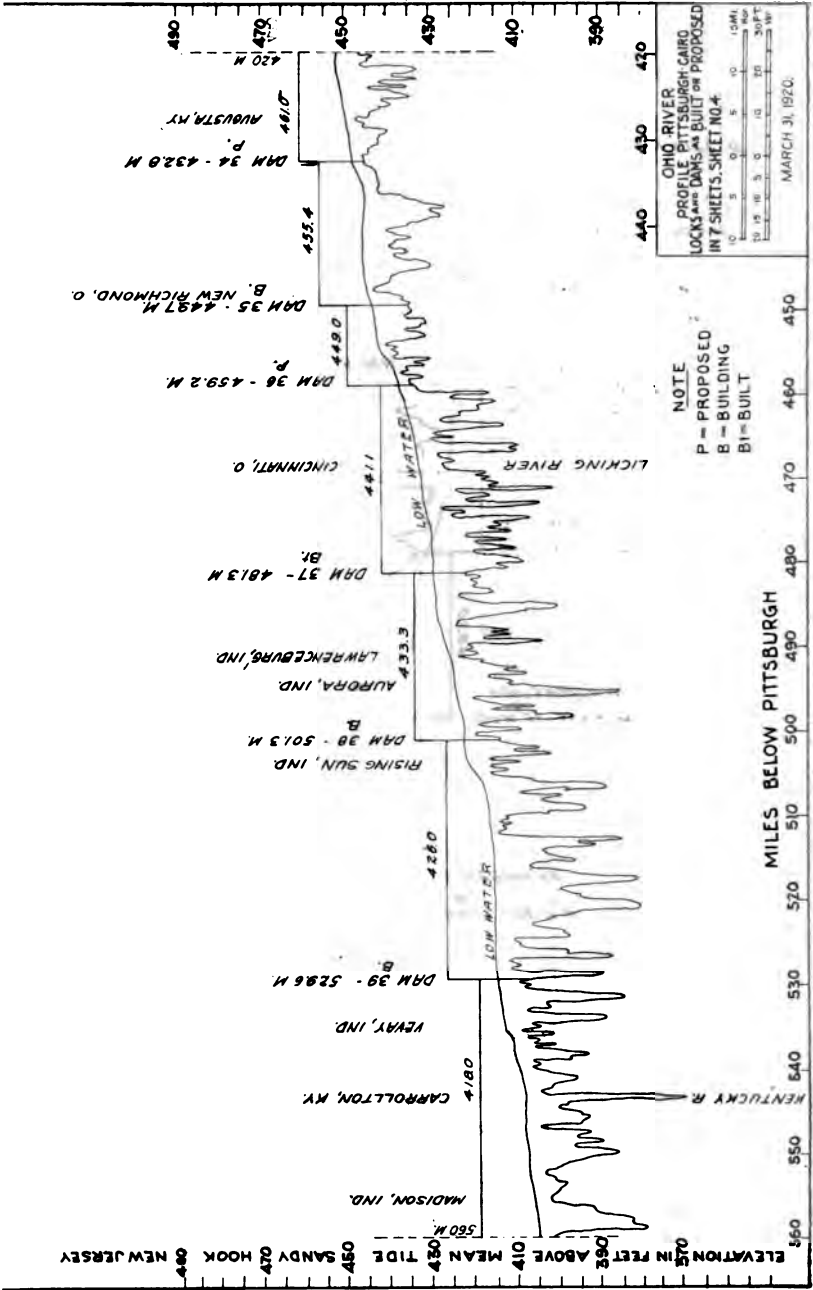
In the construction of Dams Nos. 13, 21 to 25, 27, 39, 43, 45, and 48, a modification of the Chanoine wicket designed by Mr. Guy B. Bebout, U. S. assistant engineer, has been adopted. This wicket does not require manual lowering as it drops automatically through change in water pressure when the stage reaches a certain height. The Bebout weir replaces one of the bear traps and all or part of the Chanoine weir of the design of dam as originally adopted.

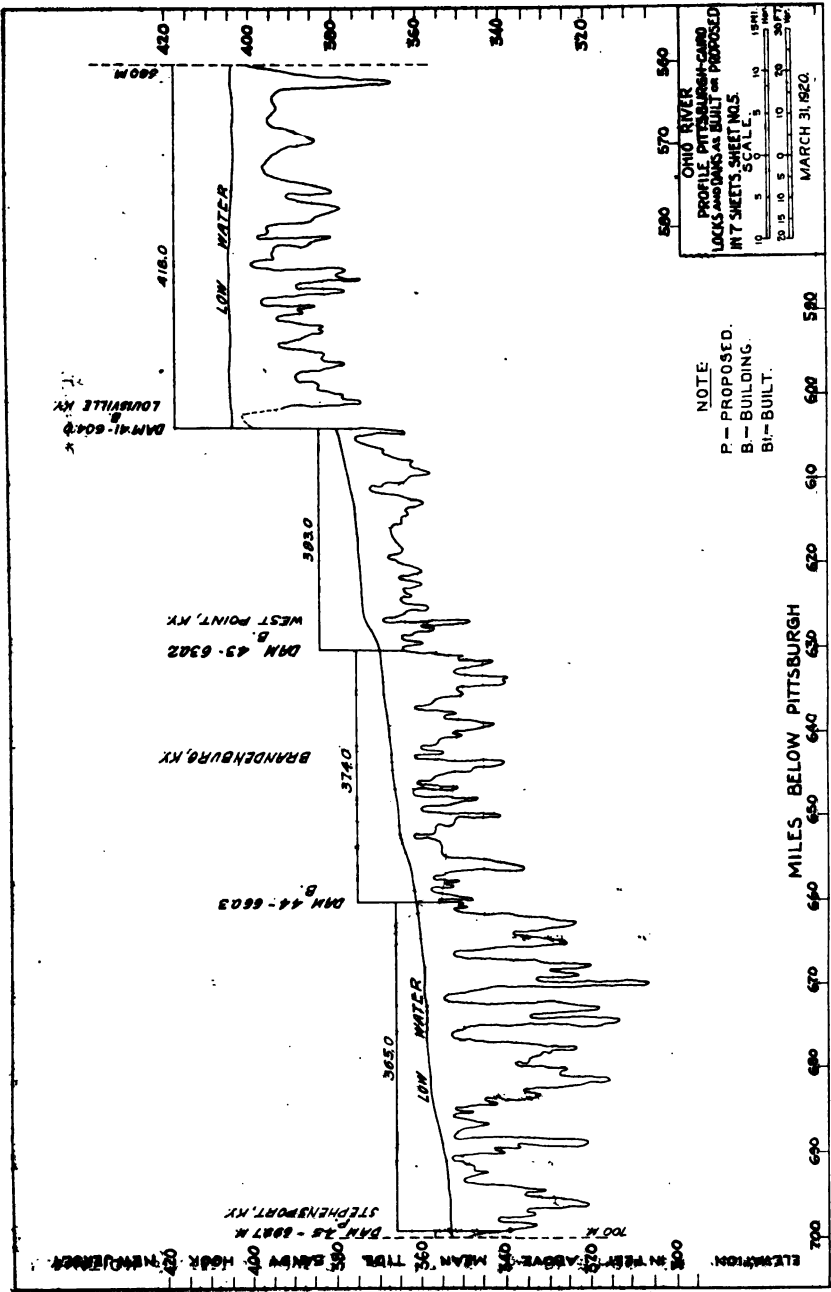
Winding engines, air jacks, boilers, etc.—Essential to the operation of the locks and bear traps are the devices used in opening and closing the lock gates and the filling and discharge valves. At present these devices are mostly operated by compressed air generated by steam, or natural gas engines, but some of the locks now in process of construction will be provided with apparatus for utilizing the water power created by the dam.

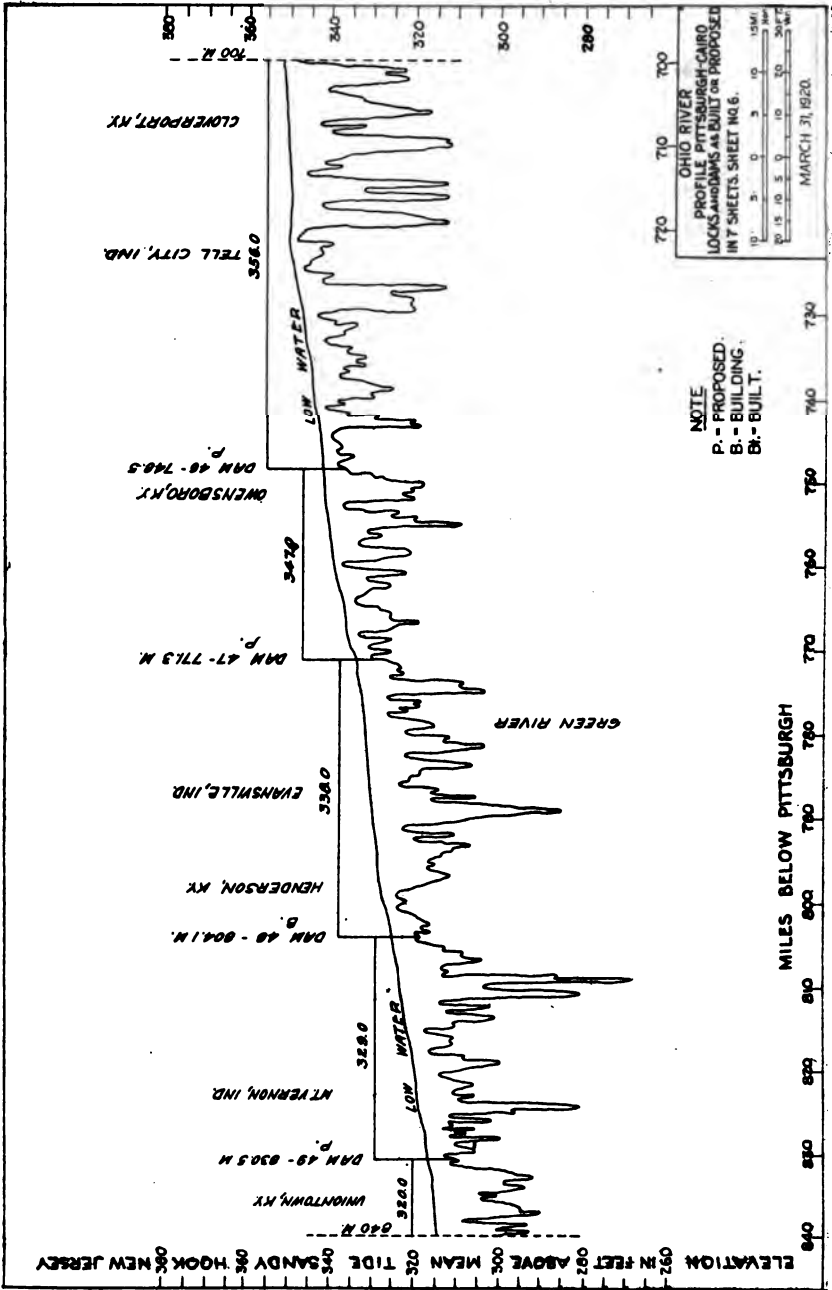
Separate plans of 45 Ohio River dams follow, viz: 1, Emsworth Dam, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 43, 44, 45, 48.

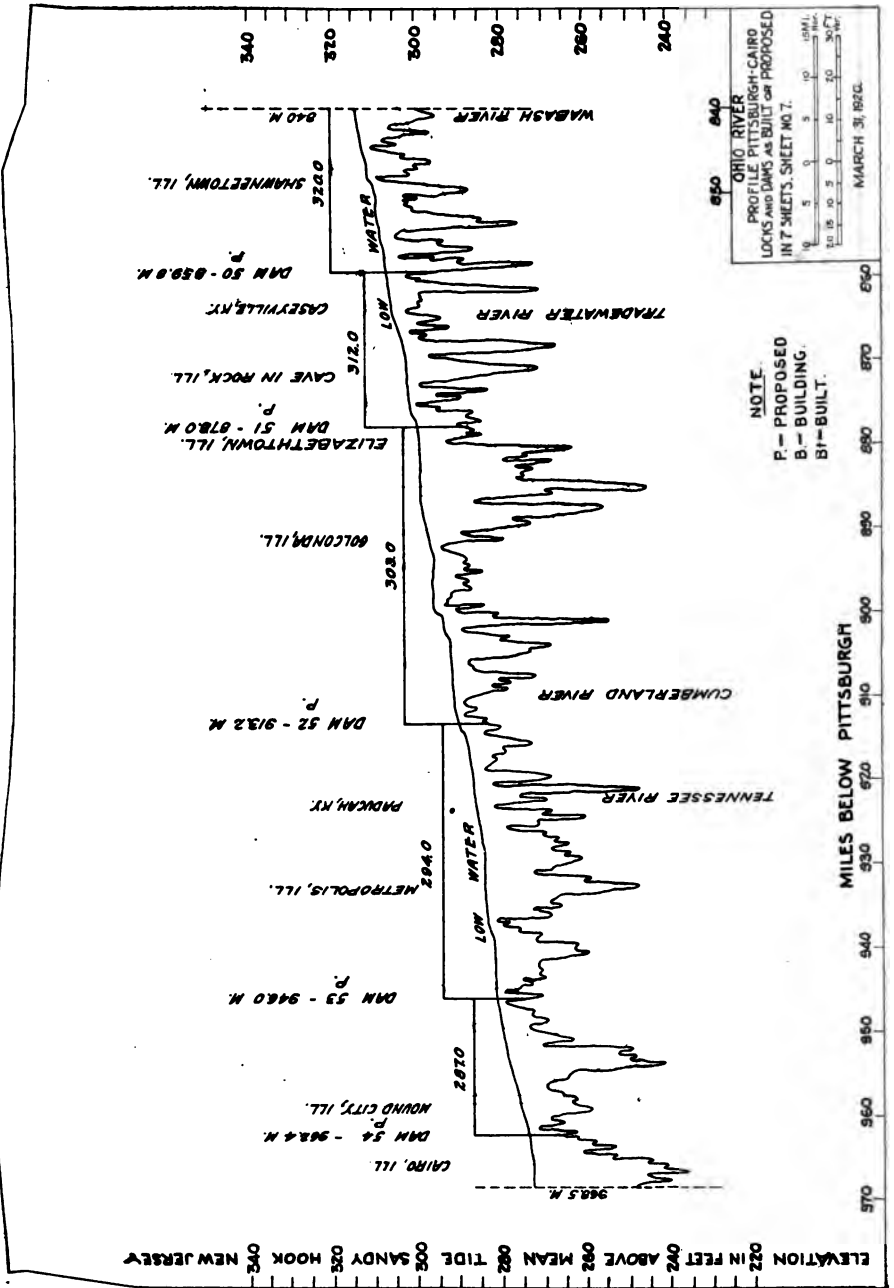


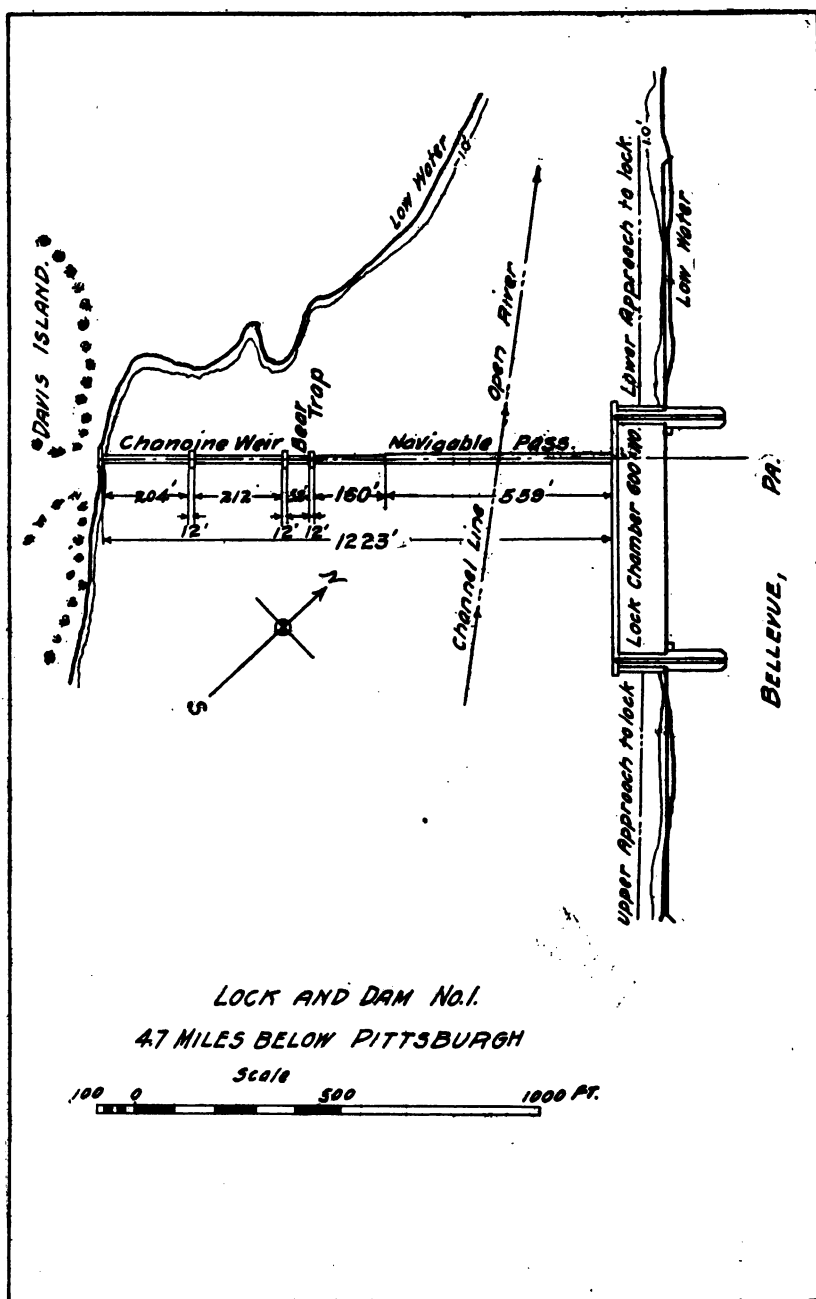


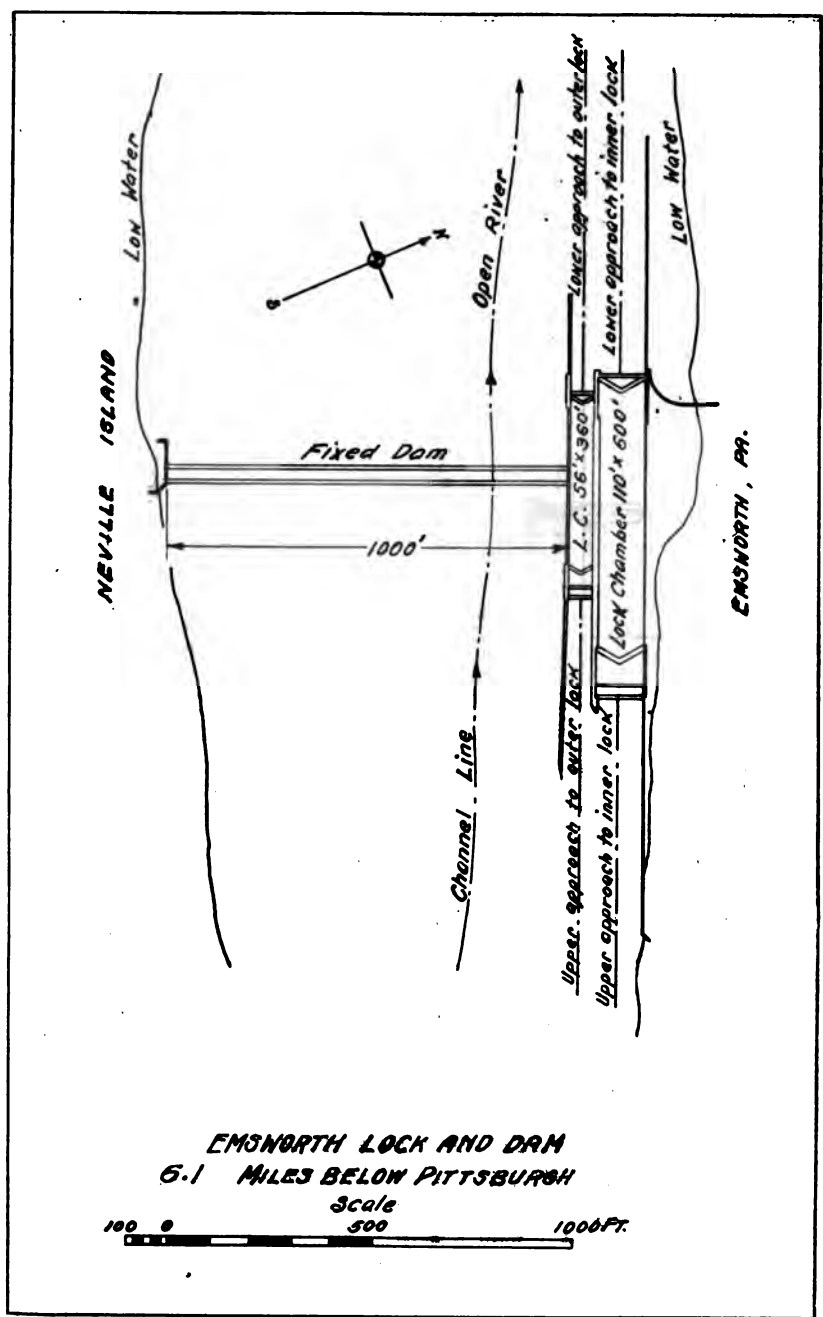


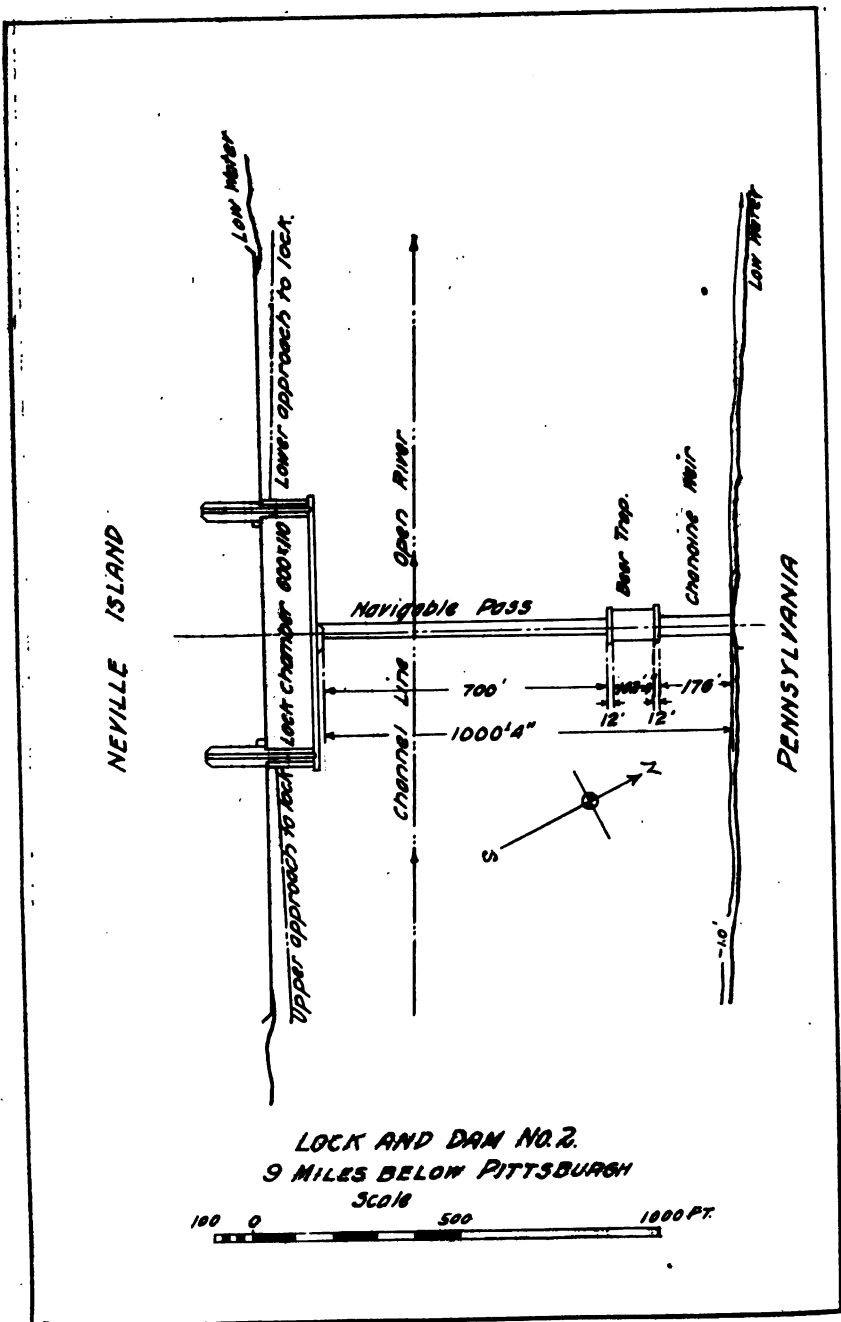


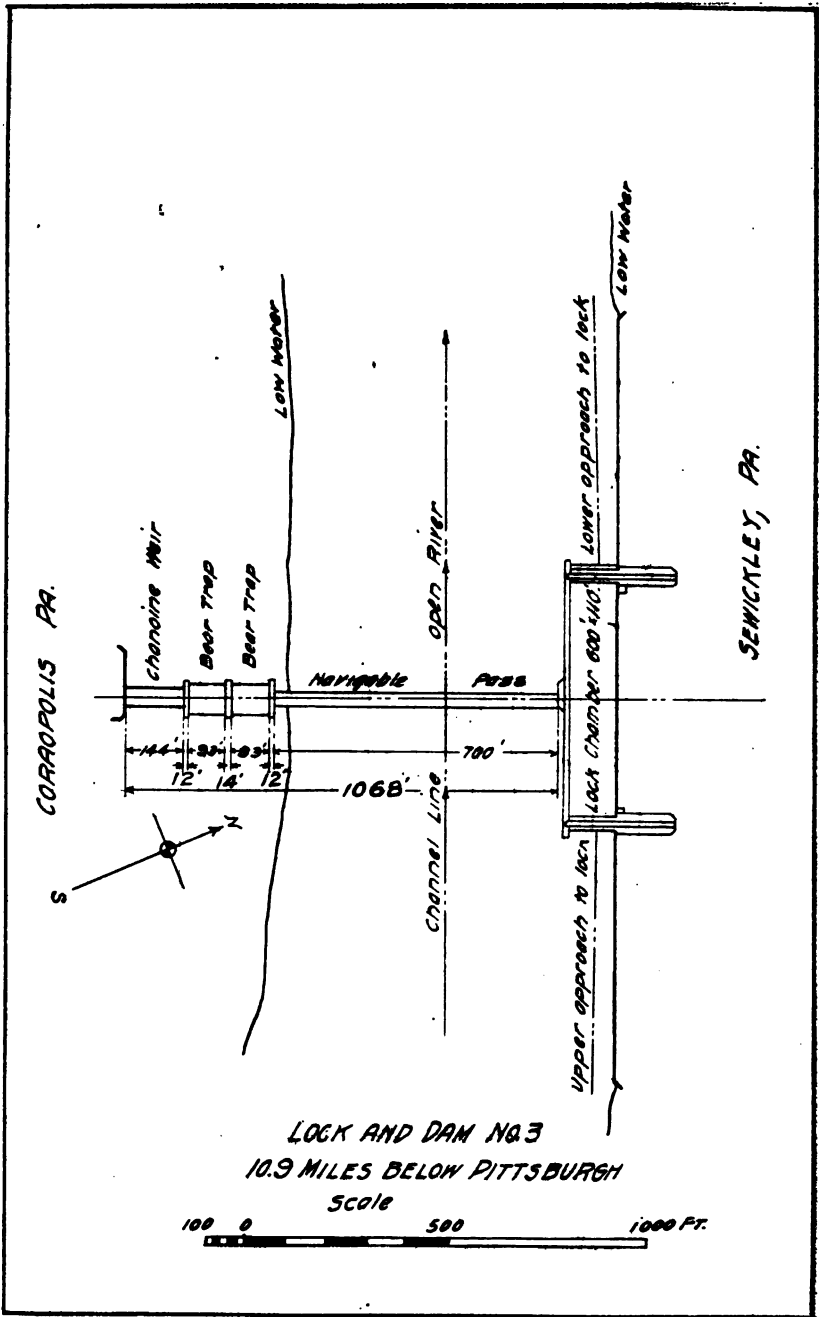


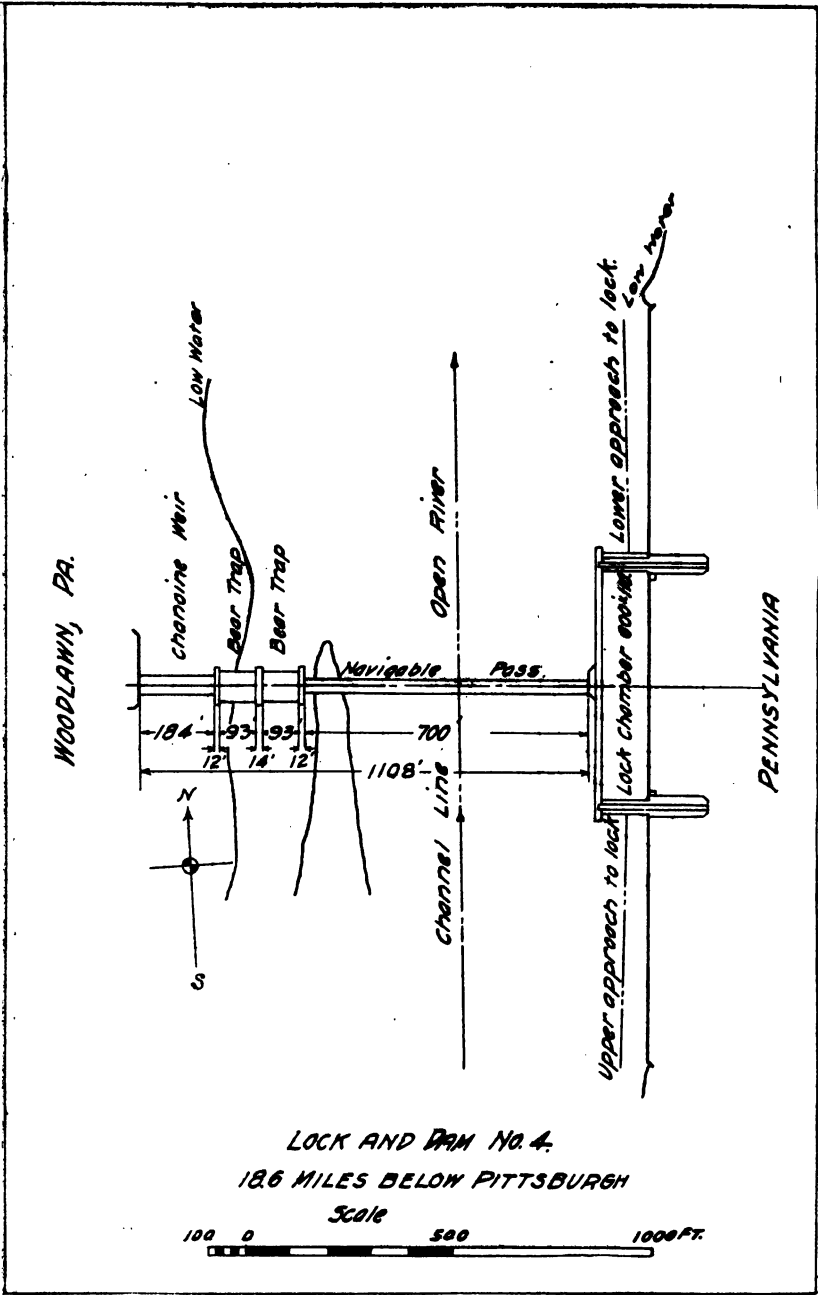


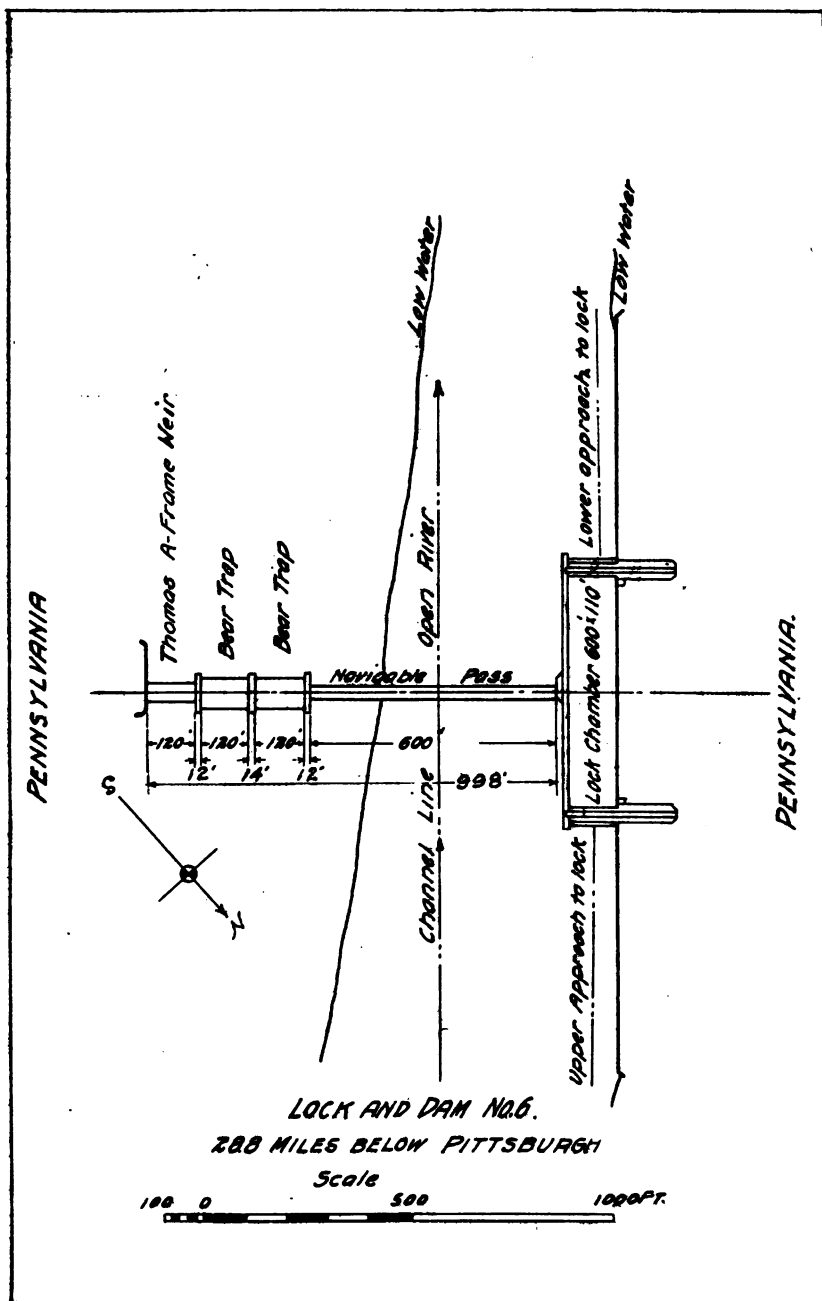


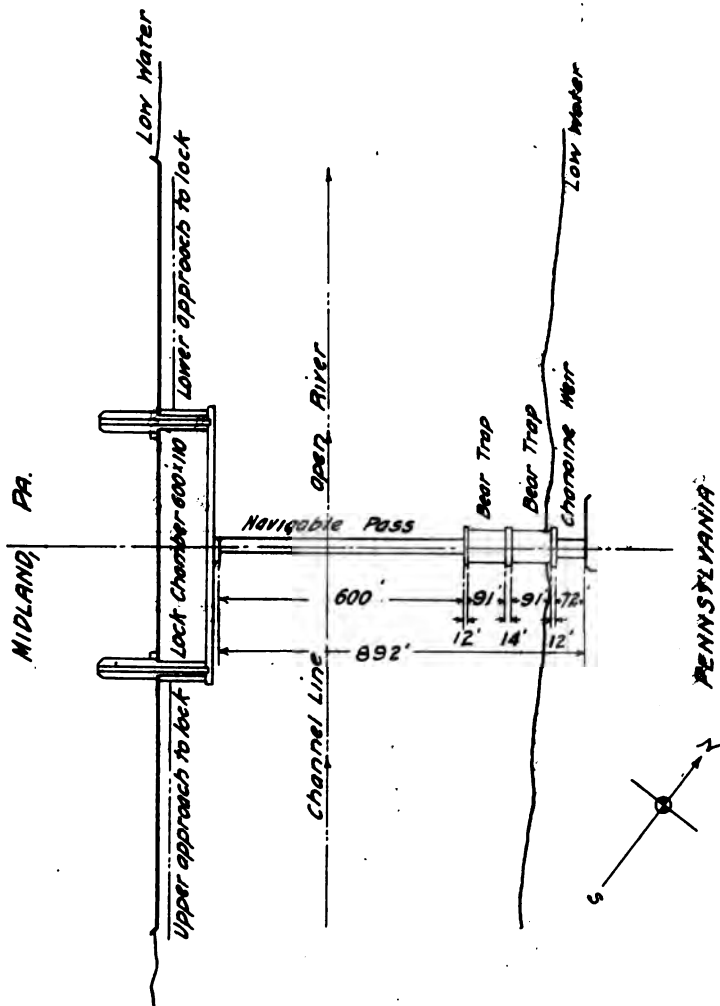






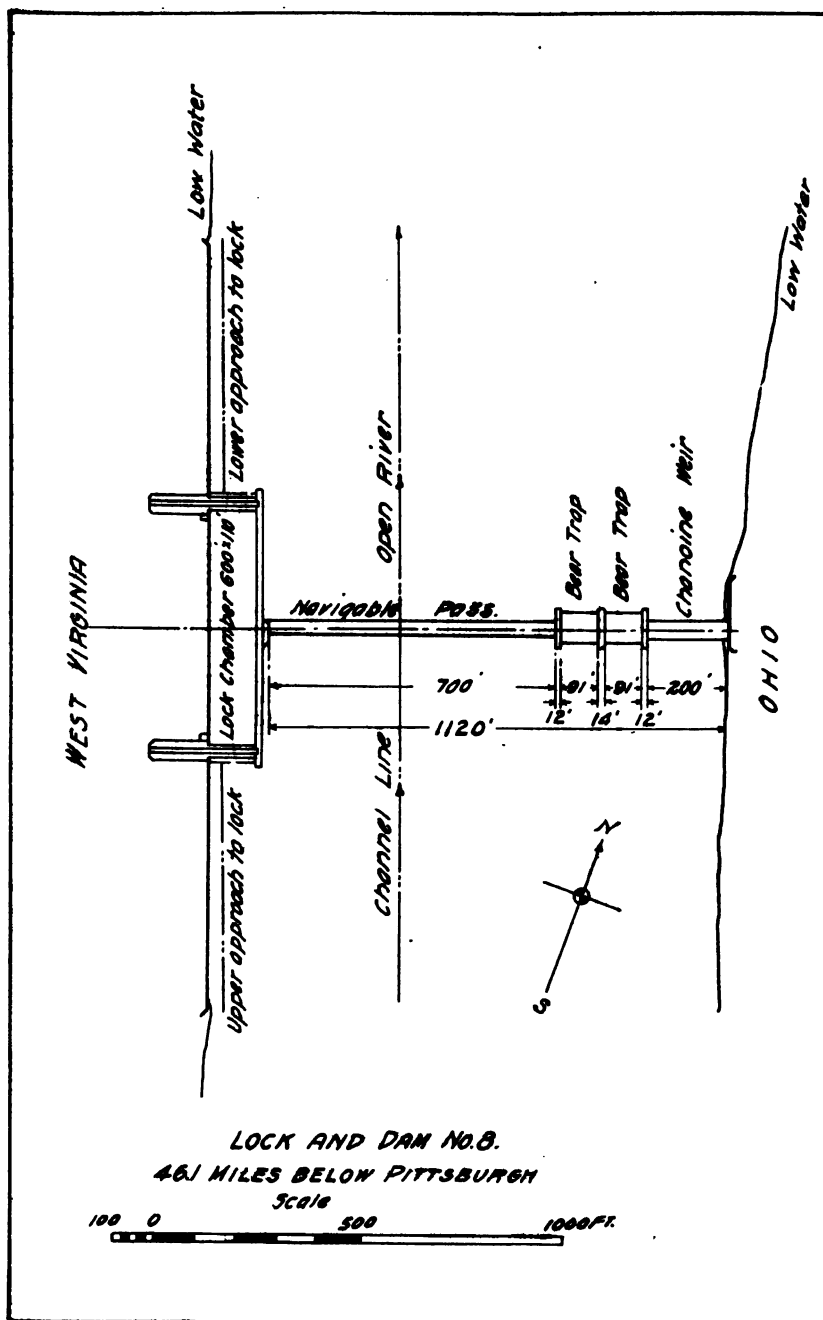


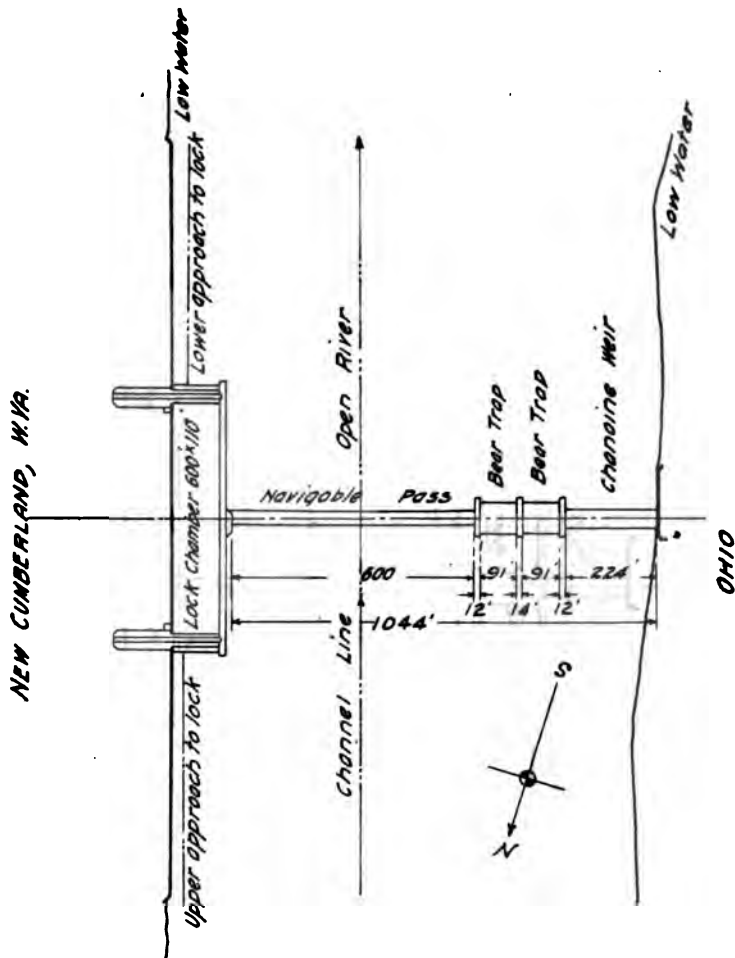




LOCK AND DAM NO. 7.
36.9 MILES BELOW PITTSBURGH
Scale

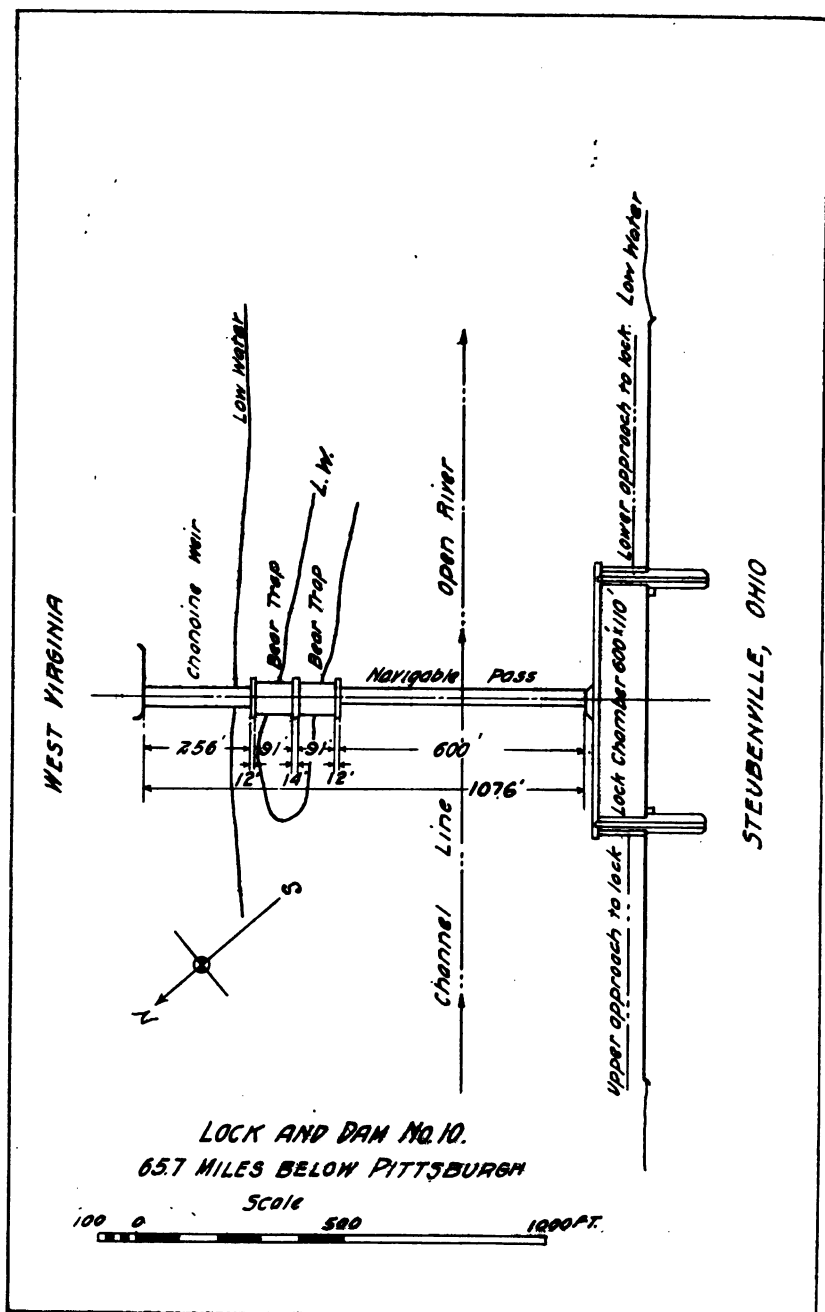


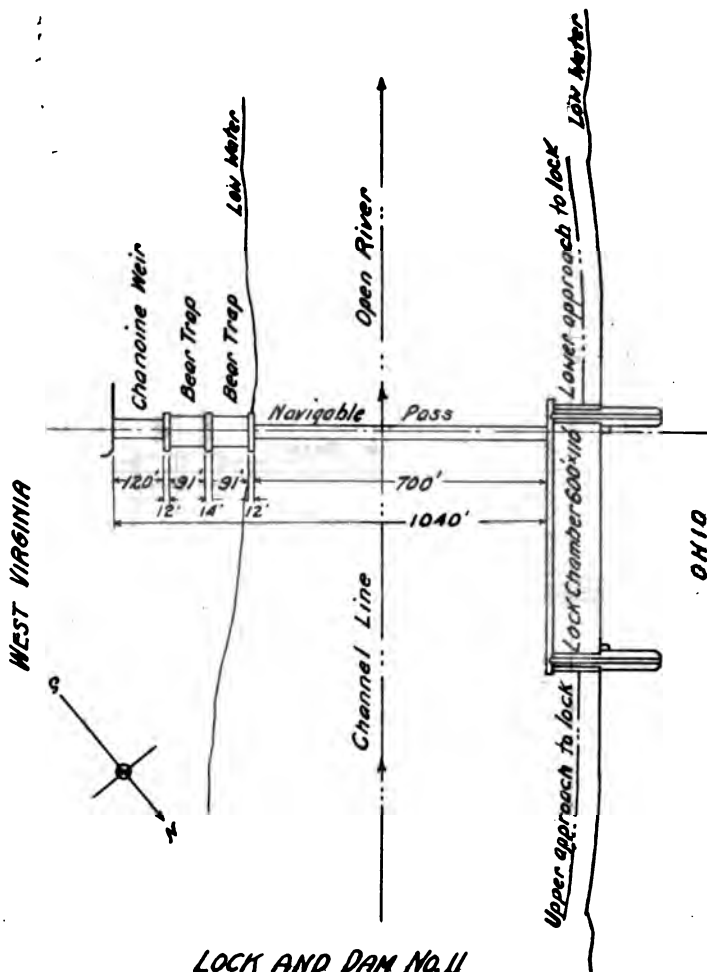




LOCK AND DAM NO. 9.
55.6 MILES BELOW PITTSBURGH

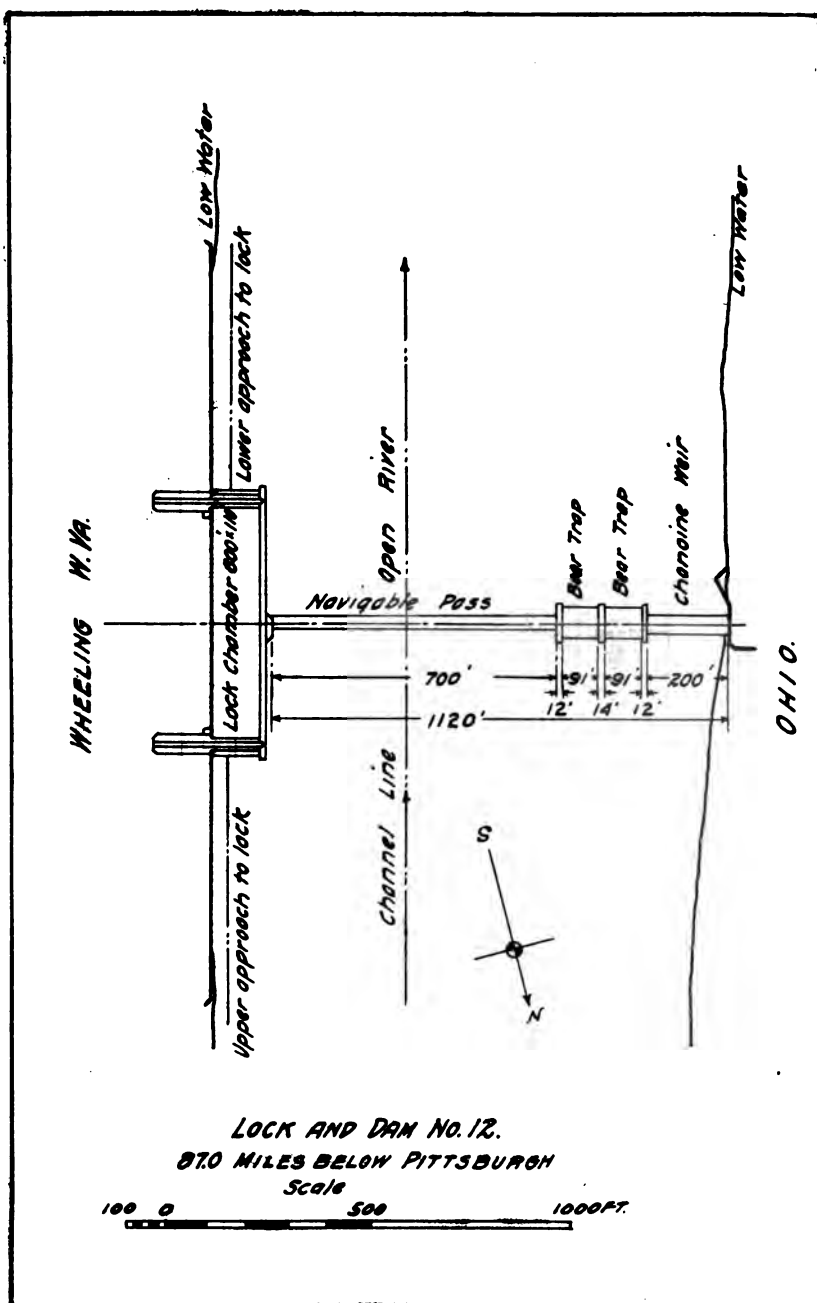
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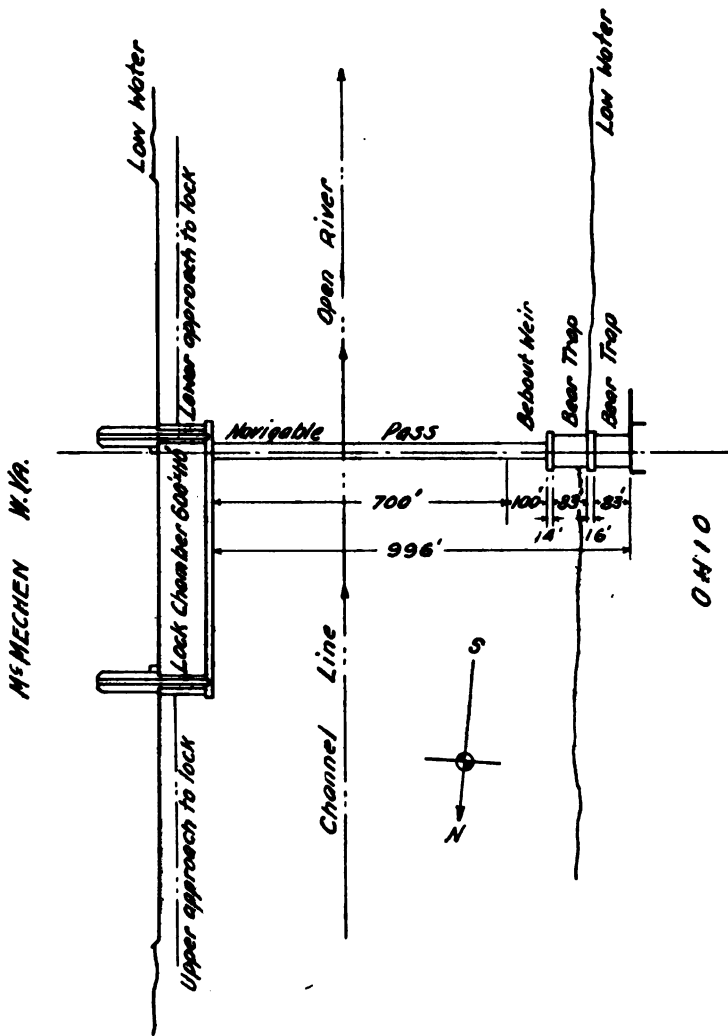




LOCK AND DAM NO. 11.
76.3 MILES BELOW PITTSBURGH

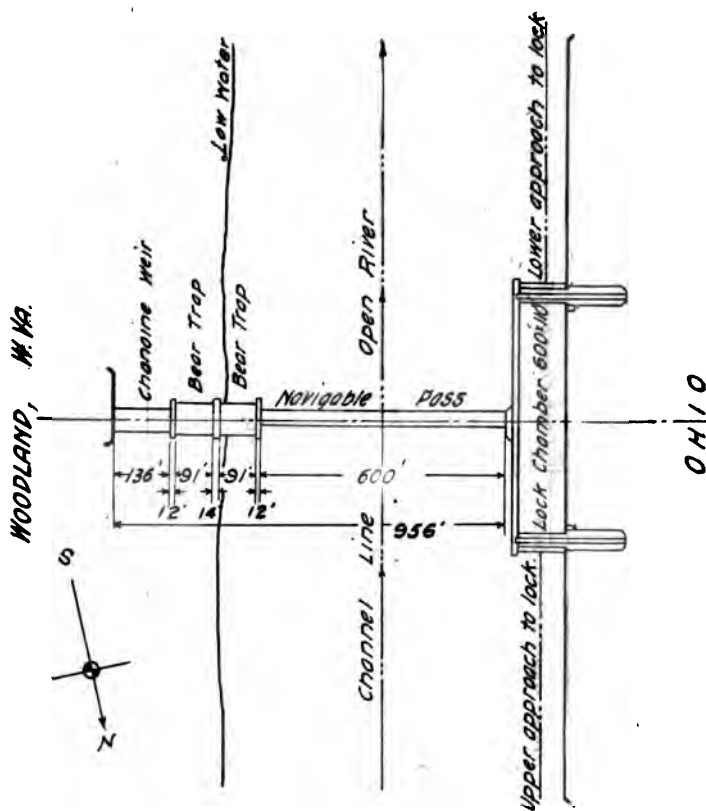
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LOCK AND DAM NO. 13
95.8 MILES BELOW PITTSBURGH



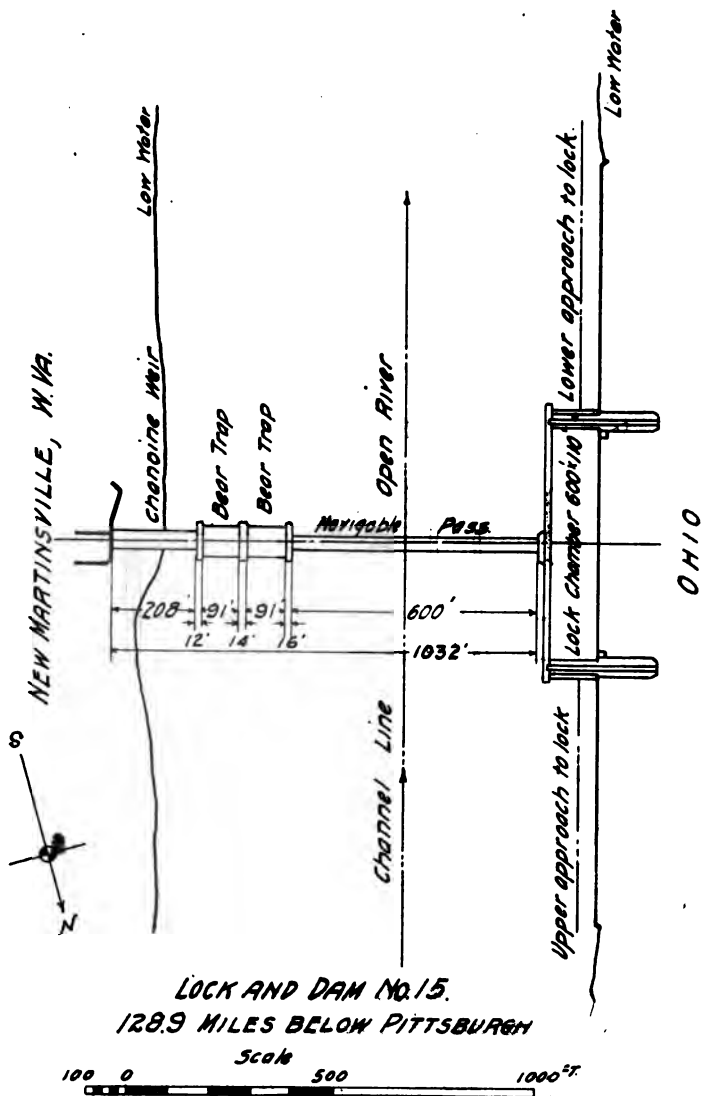


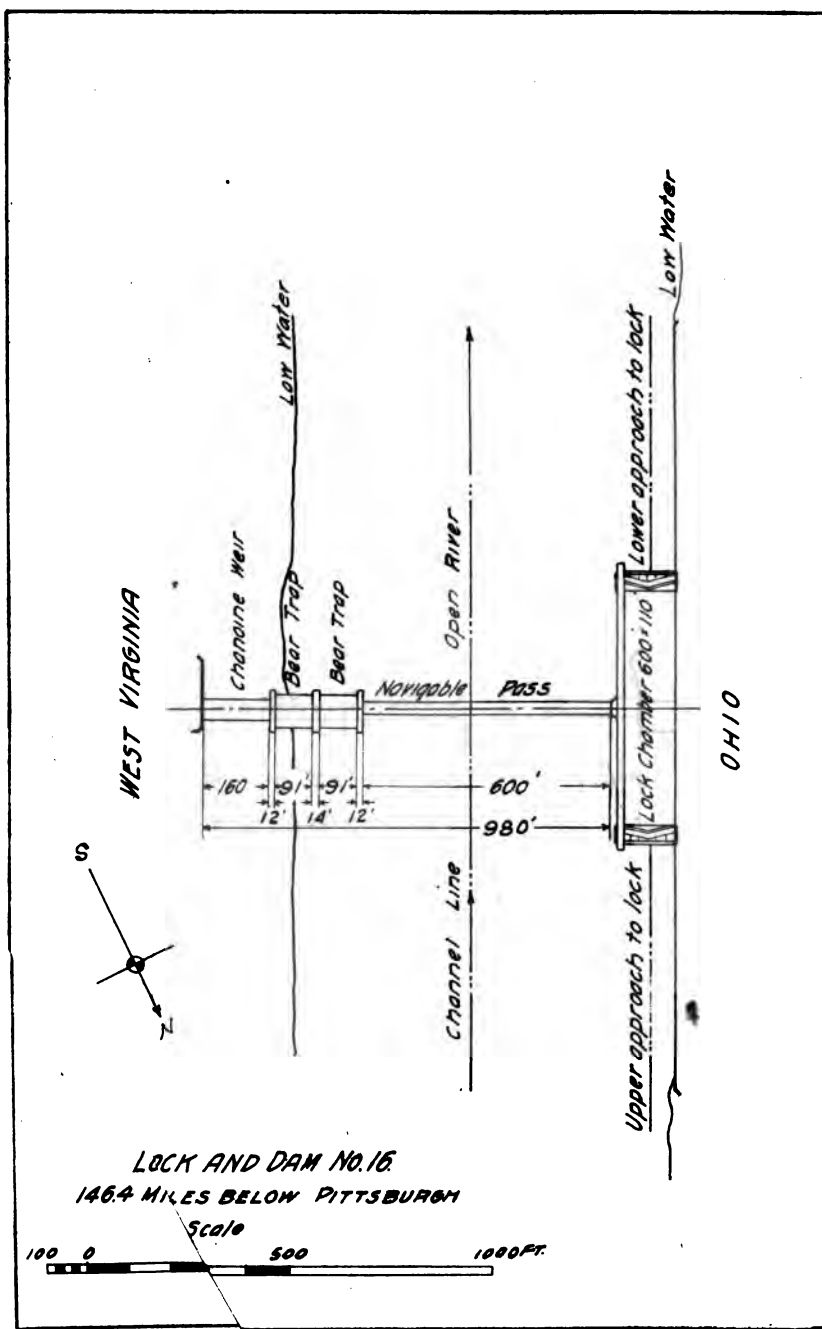
LOCK AND DAM NO. 14.

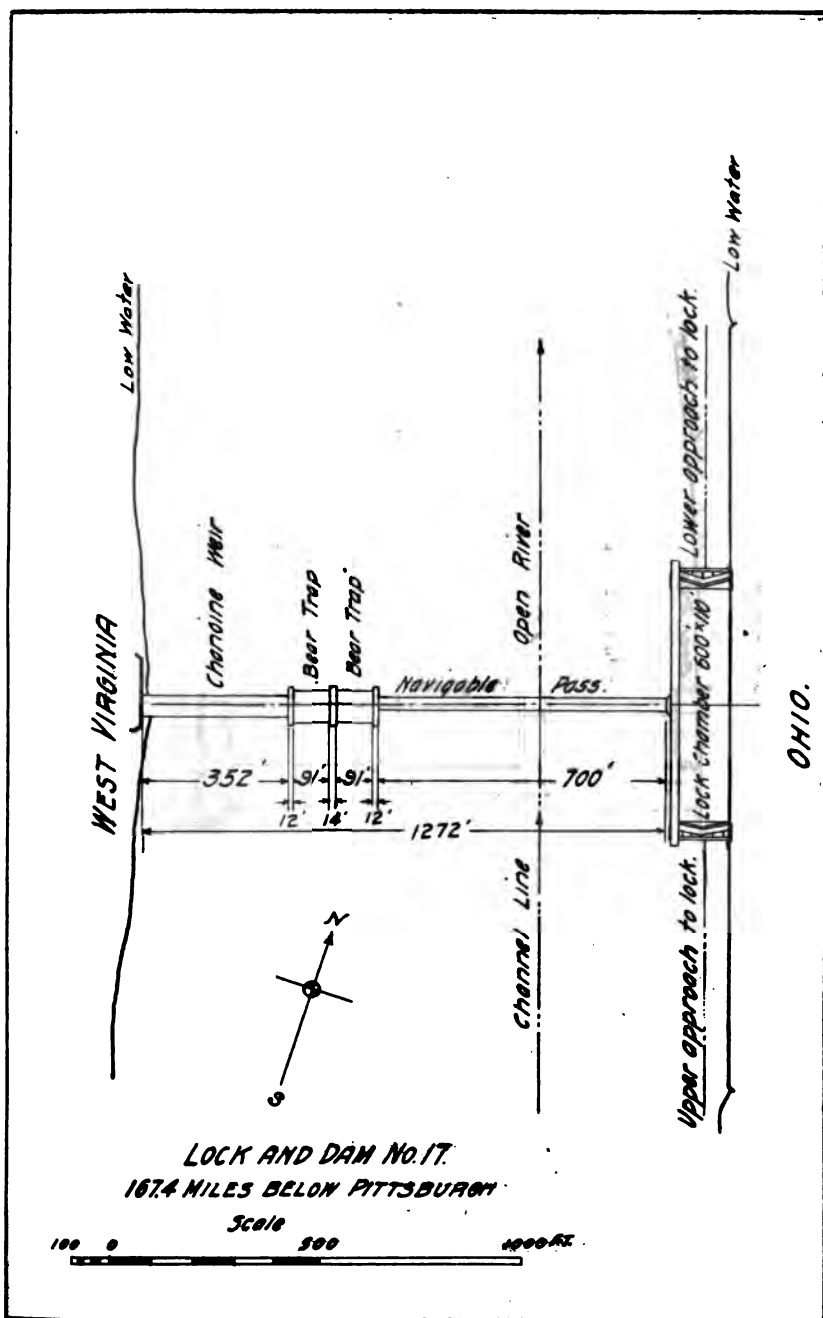
113.8 MILES BELOW PITTSBURGH

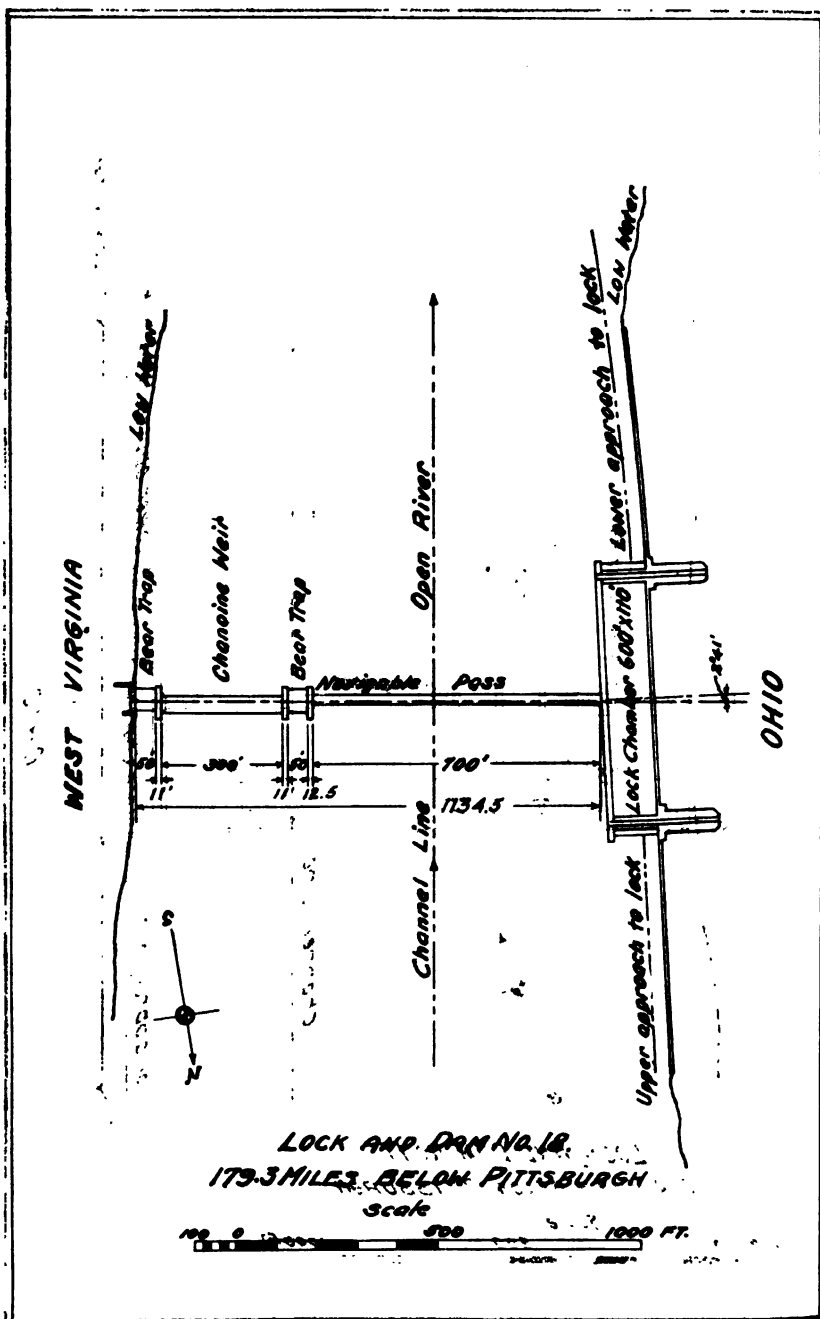
Scale



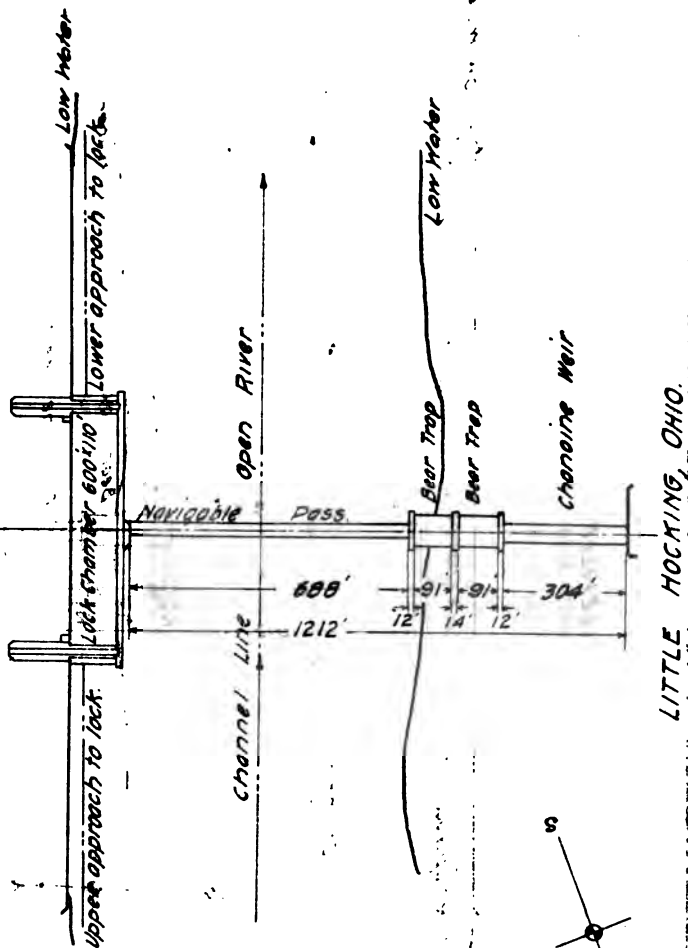








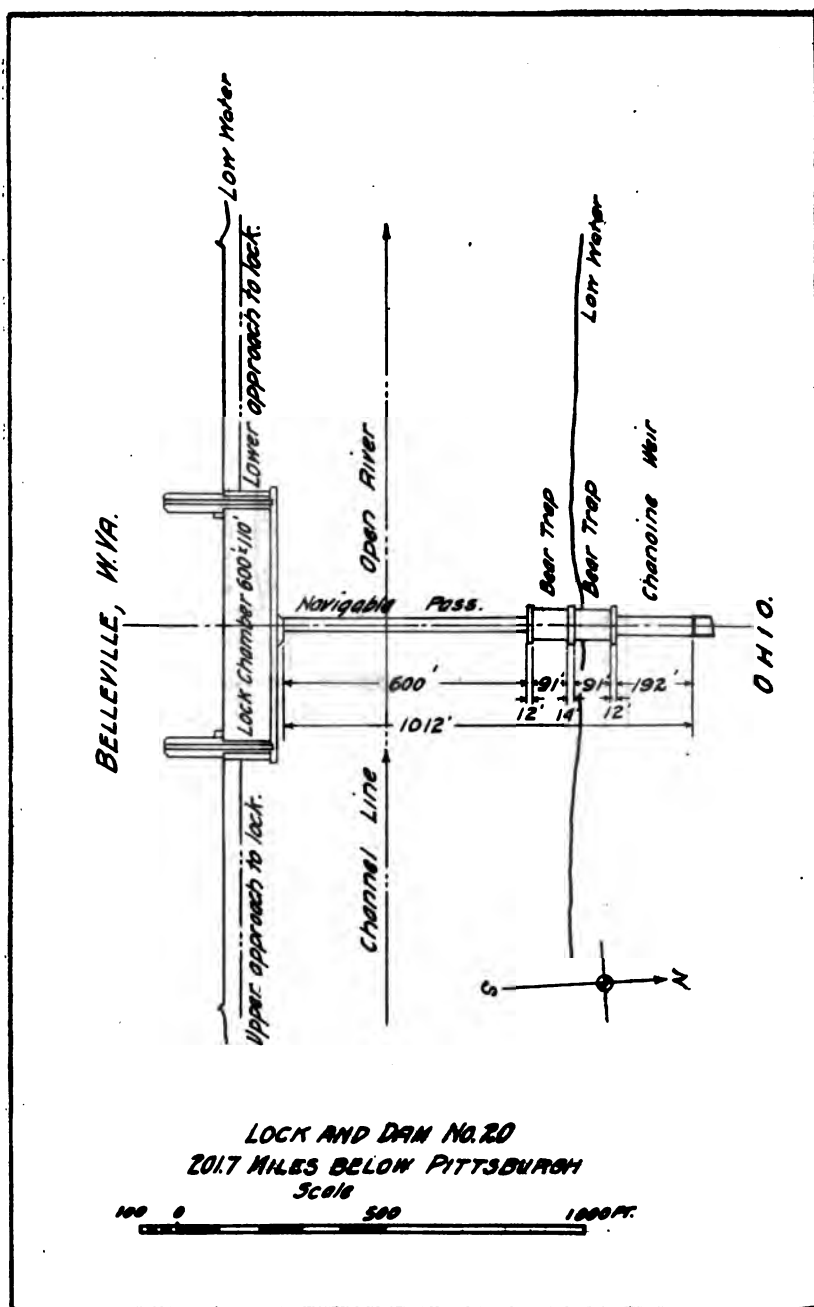
WEST VIRGINIA

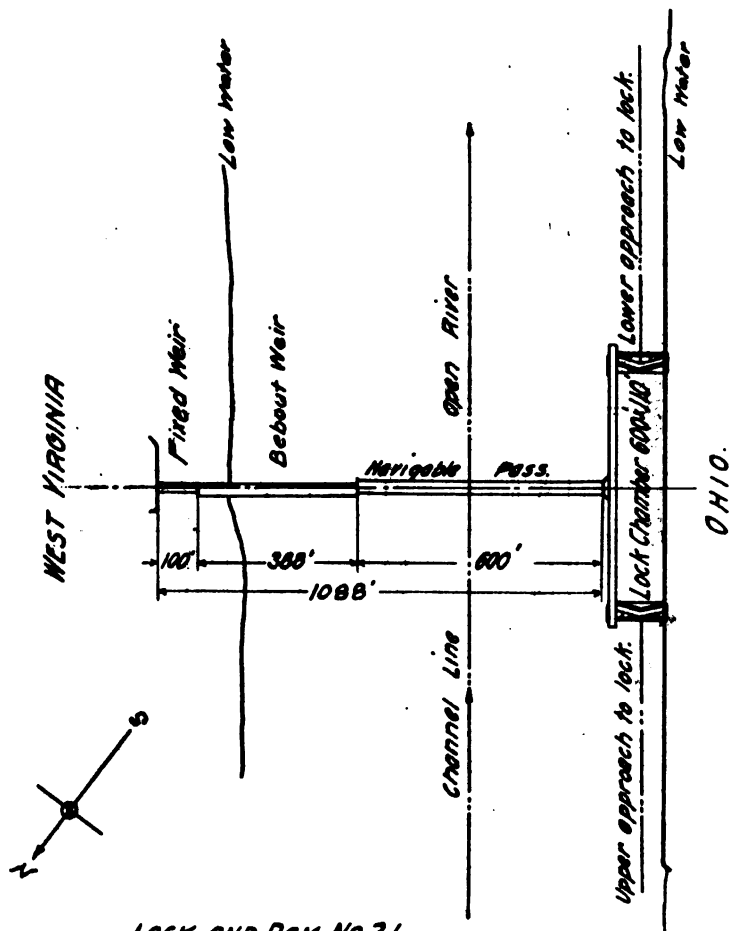


LITTLE HOCKING, OHIO.

LOCK AND DAM NO. 19
1914 MILES BELOW PITTSBURGH

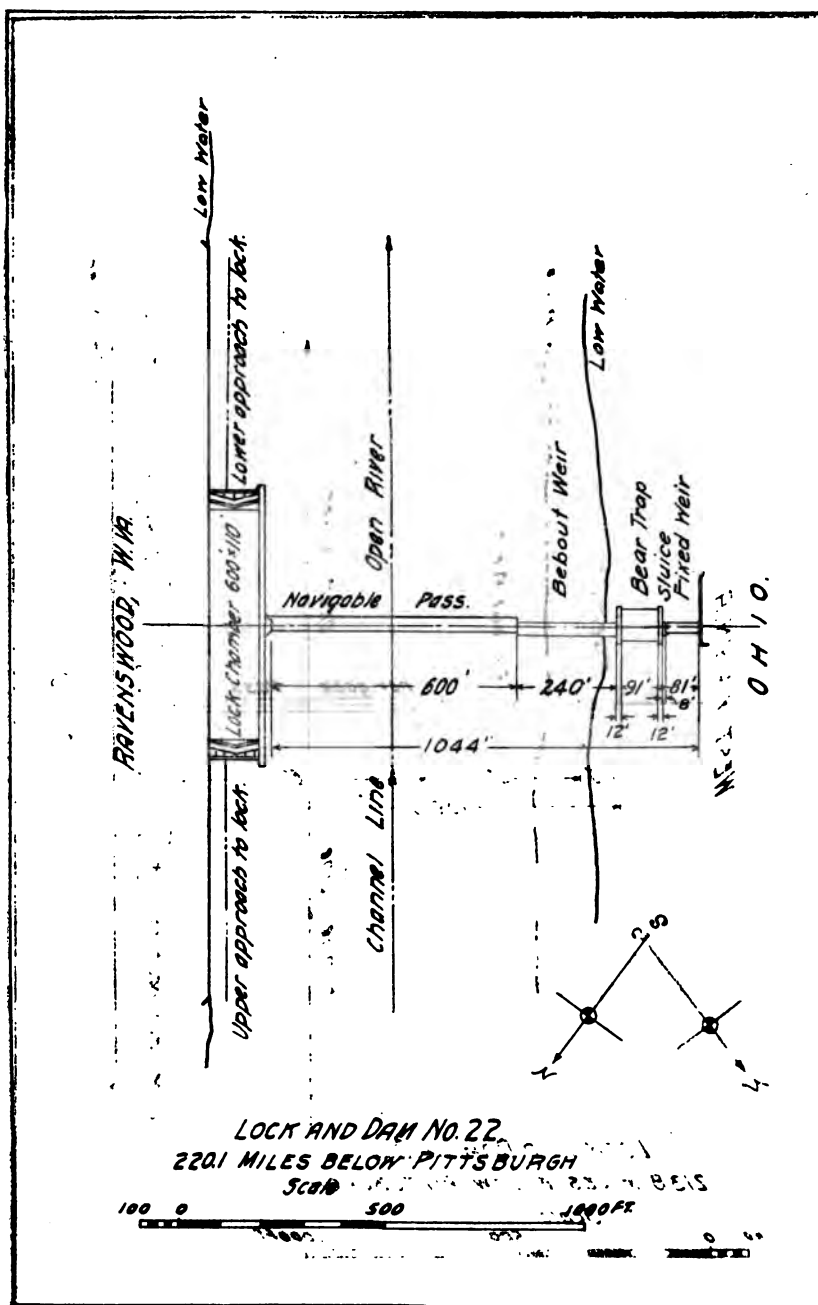
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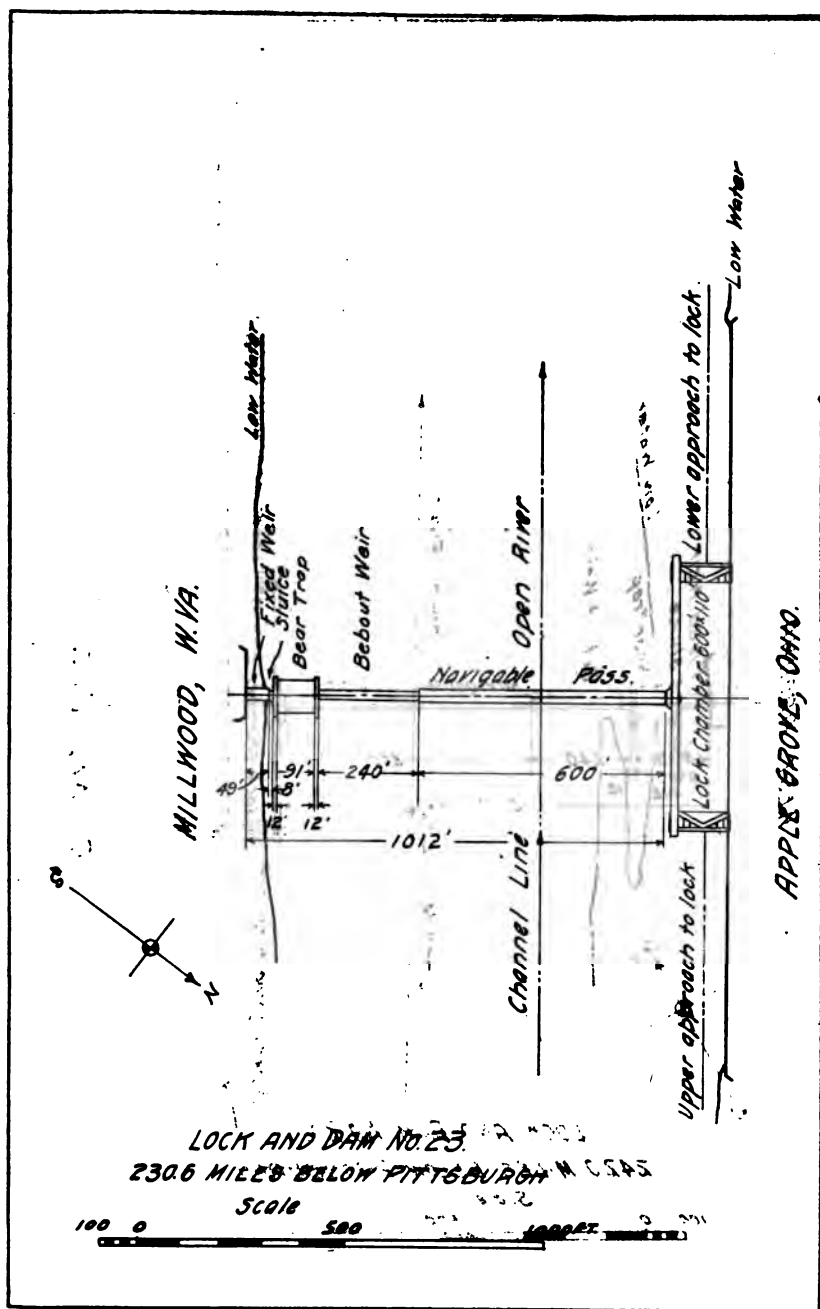


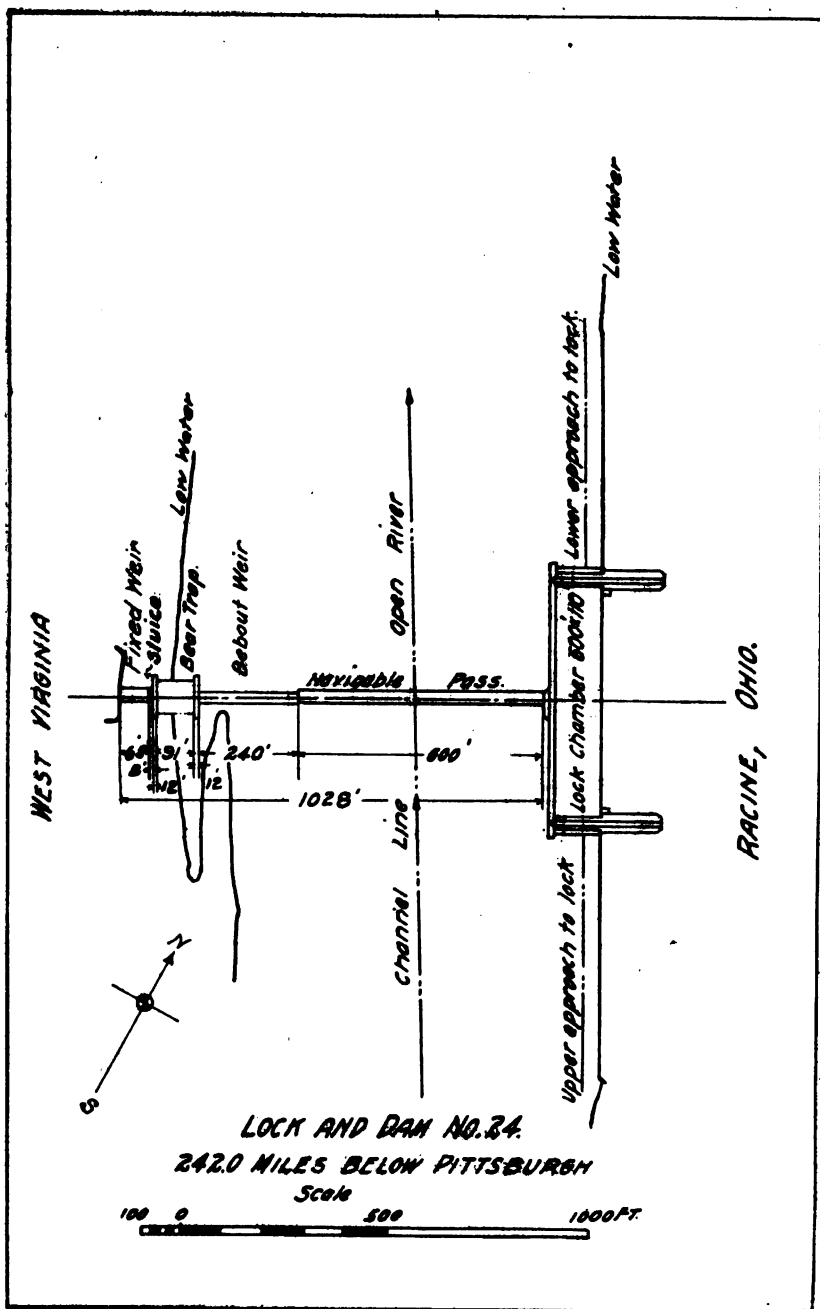


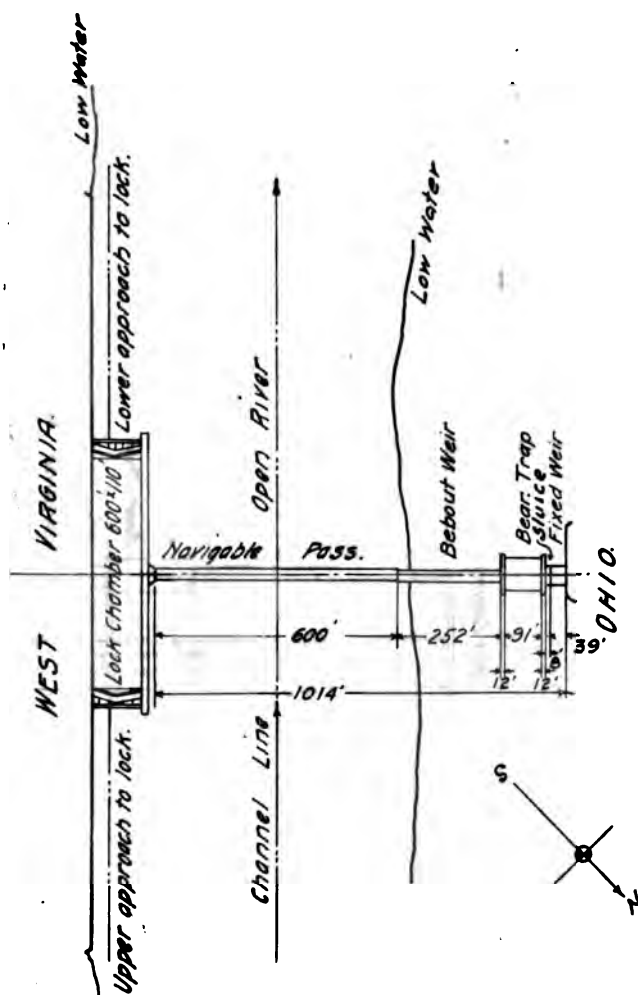
LOCK AND DAM NO. 21.
213.8 MILES BELOW PITTSBURGH







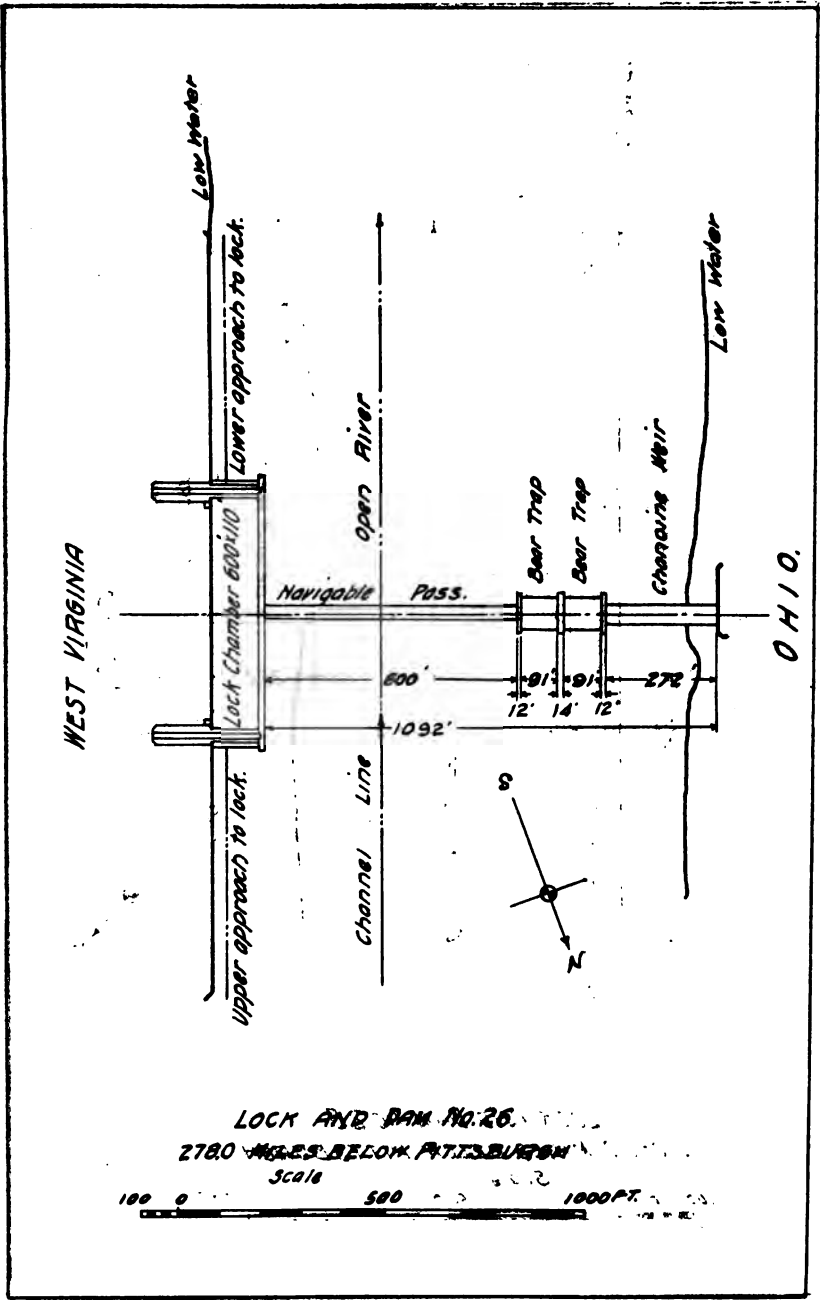


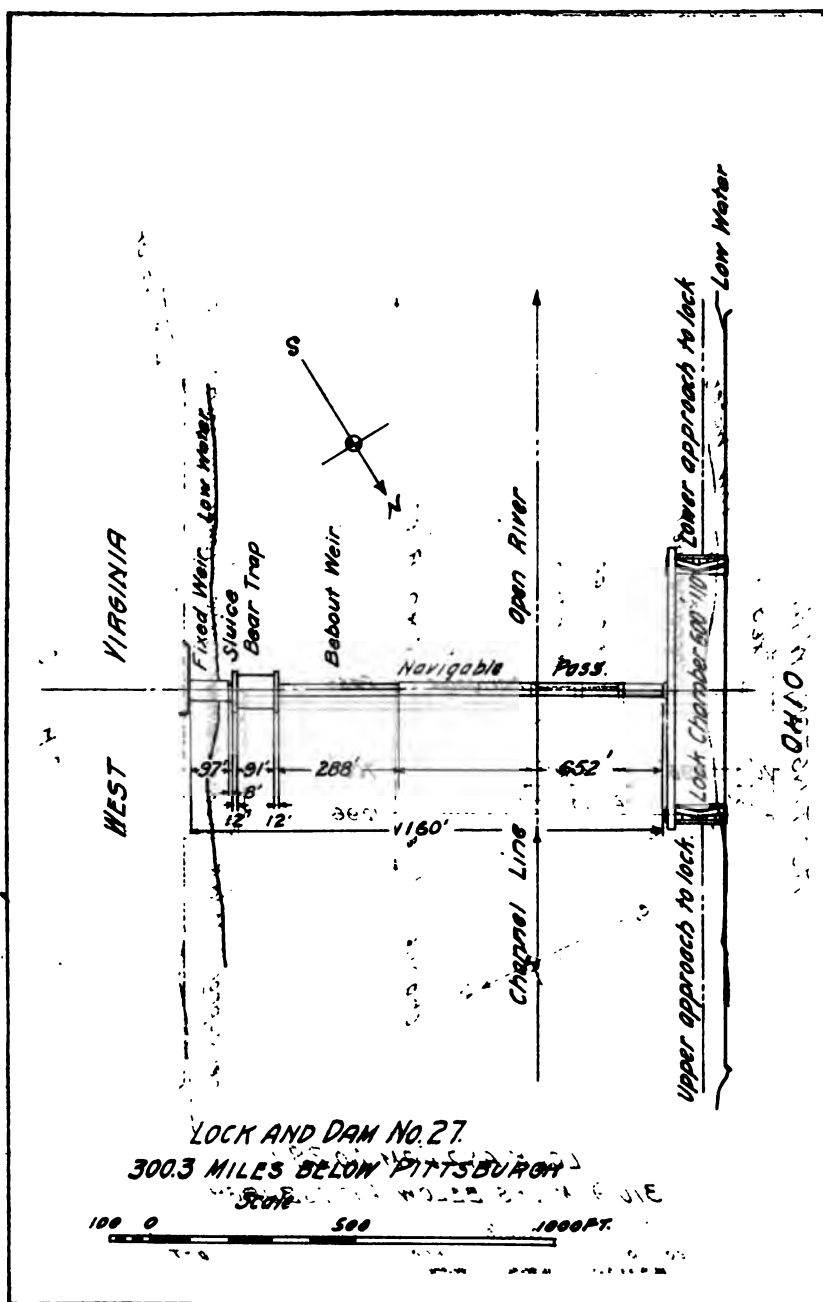


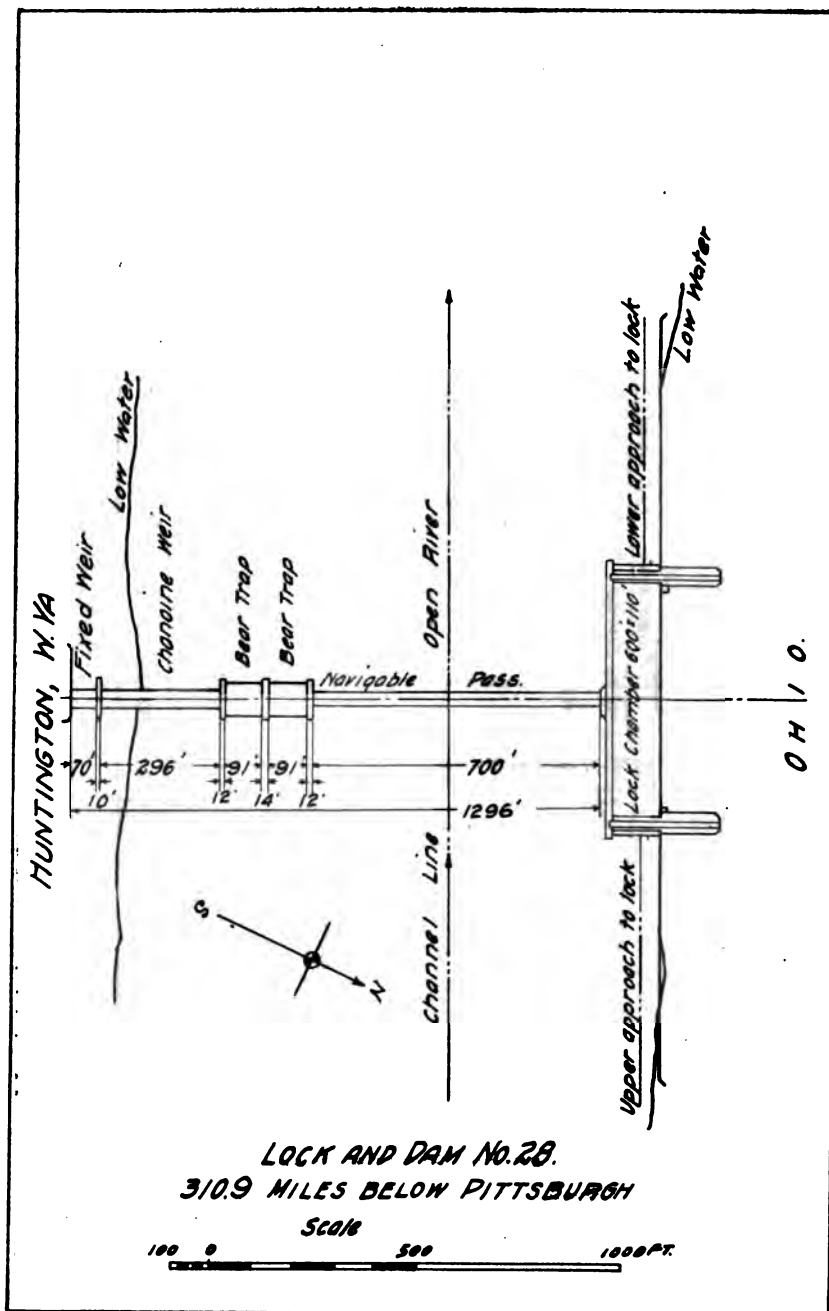
LOCK AND DAM NO. 25.
200.0 MILES BELOW PITTSBURGH

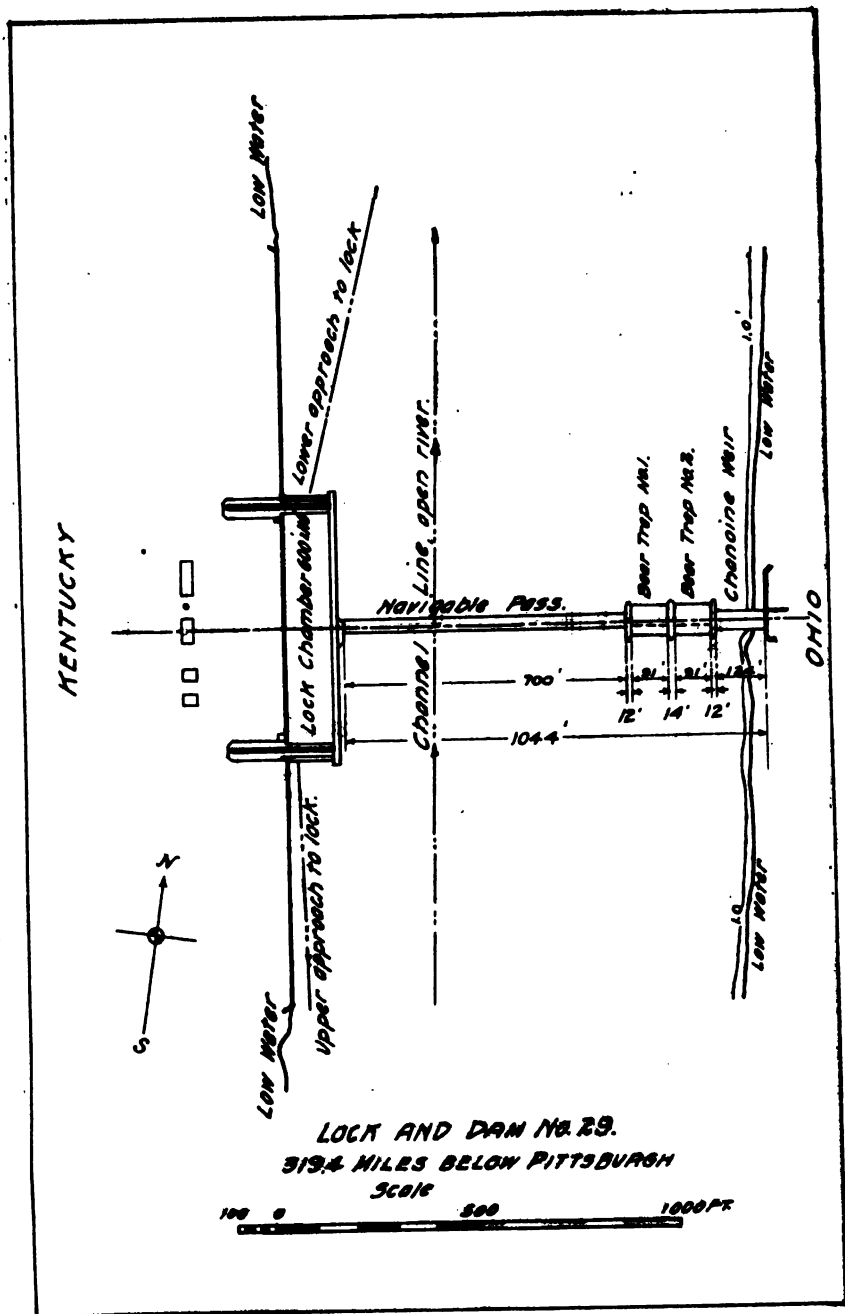
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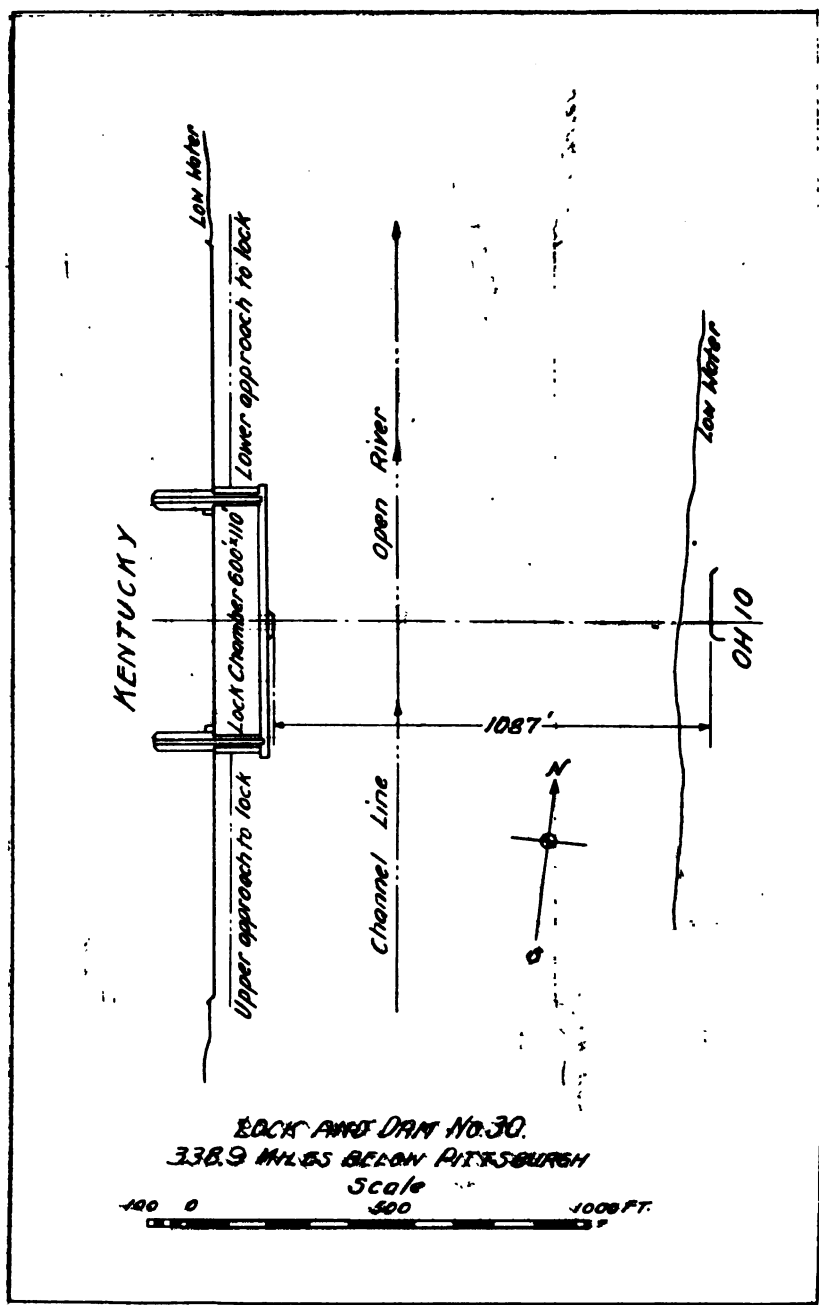


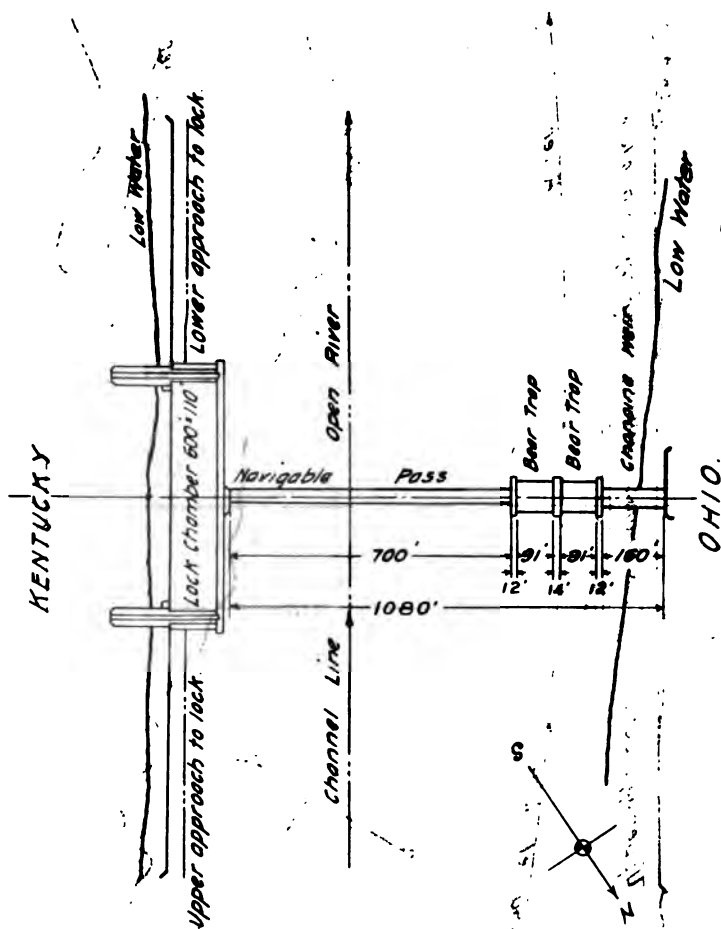




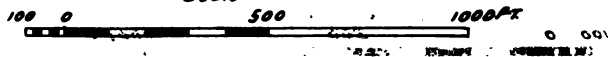


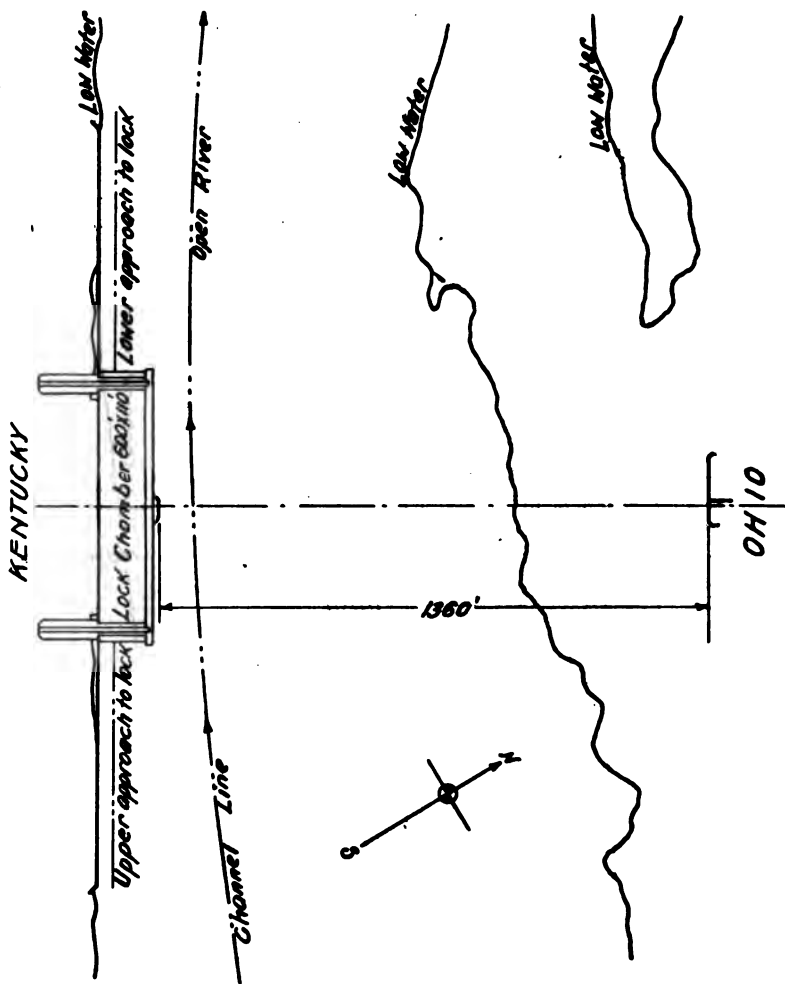






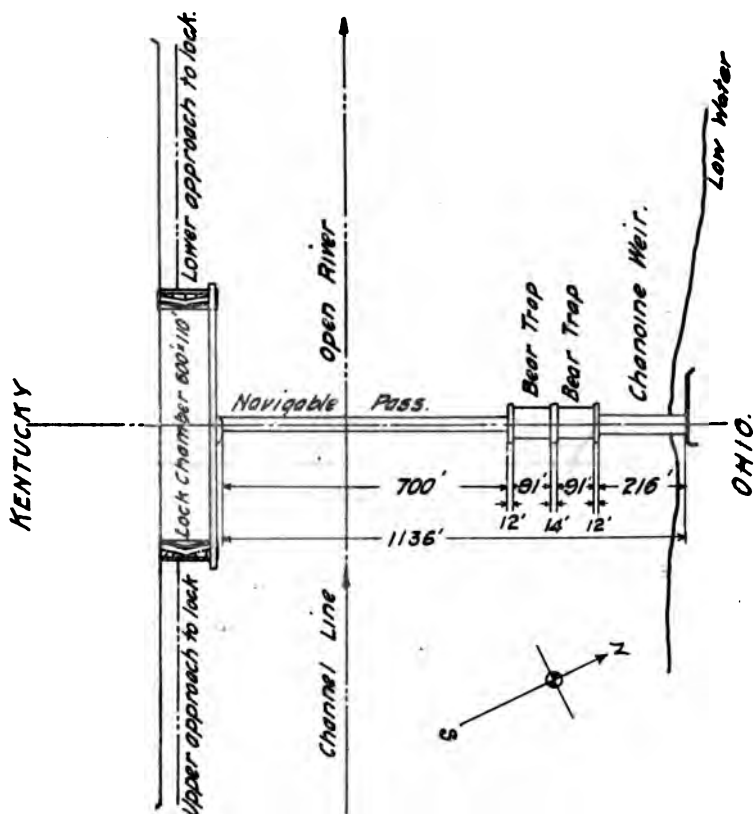
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35.4 MILES BELOW PITTSBURGH





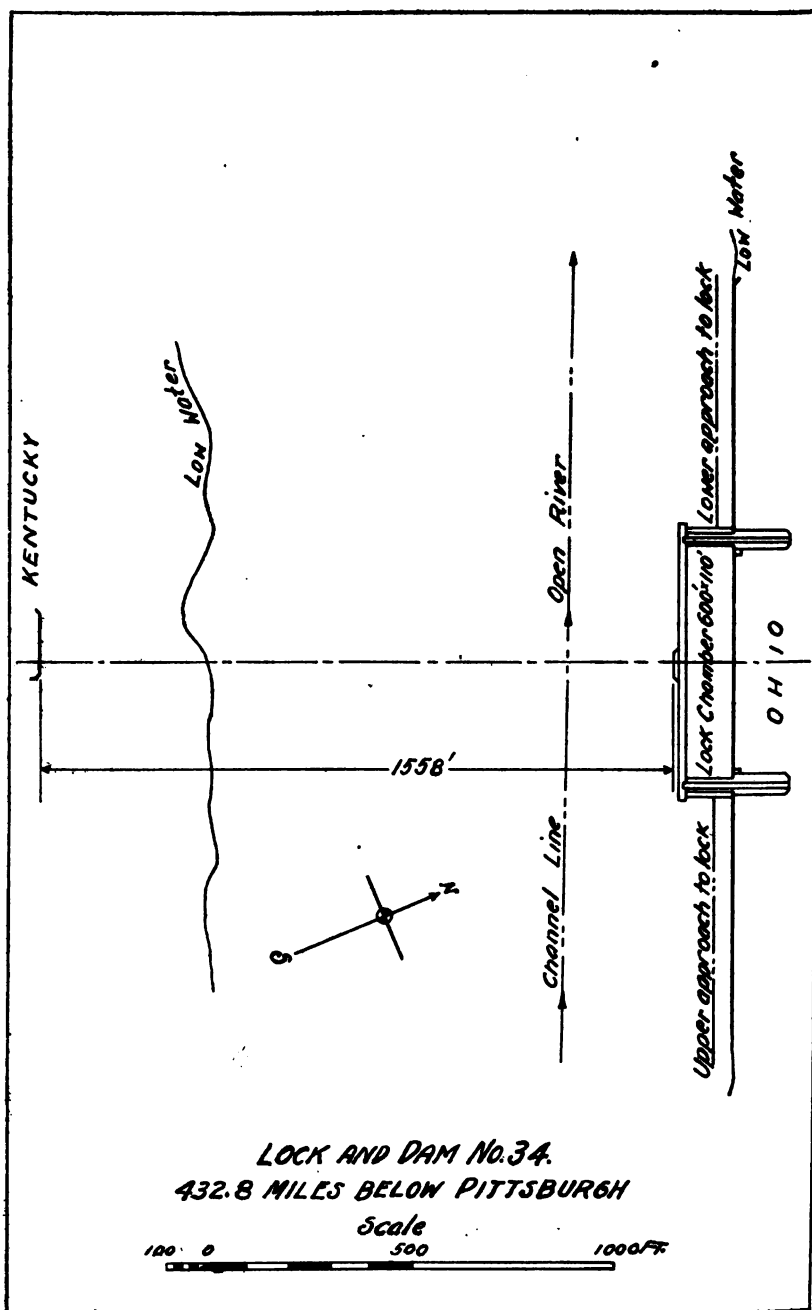
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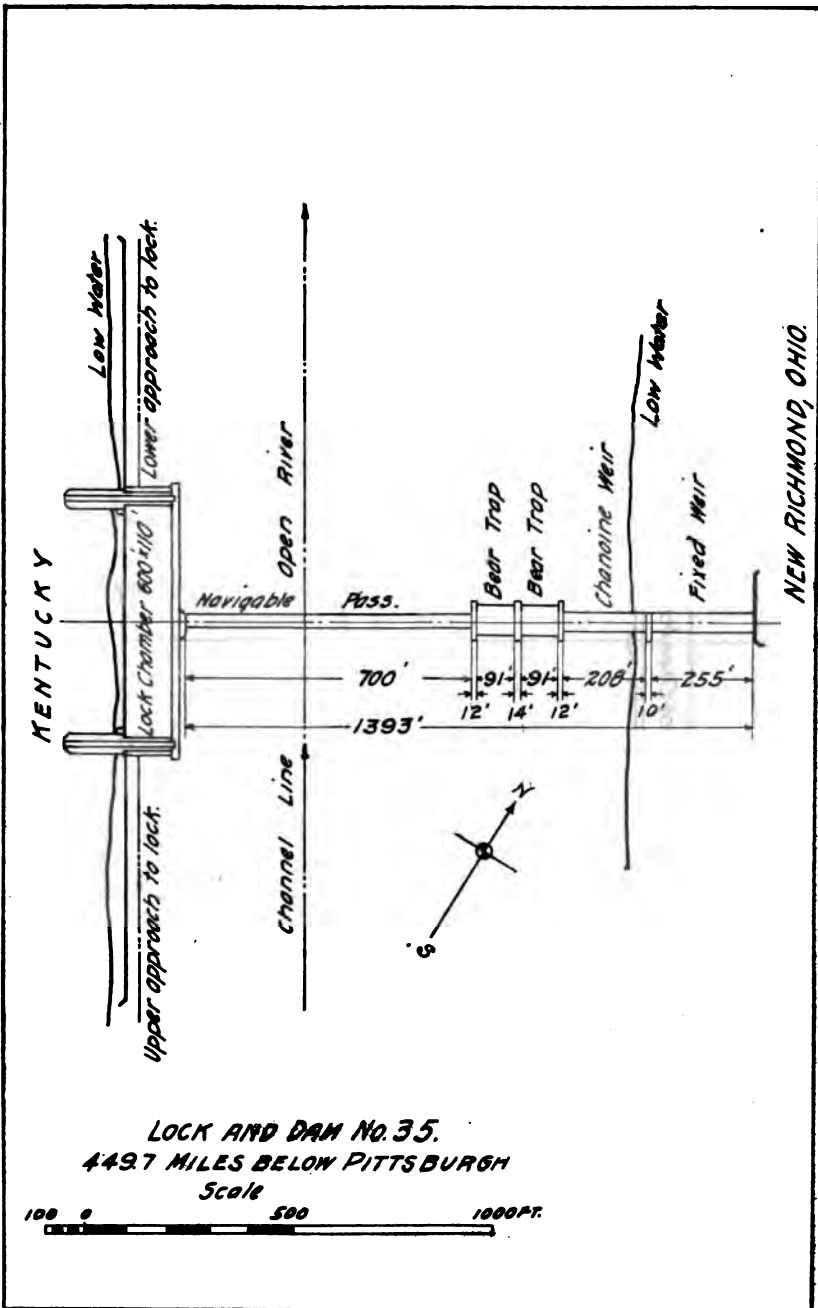
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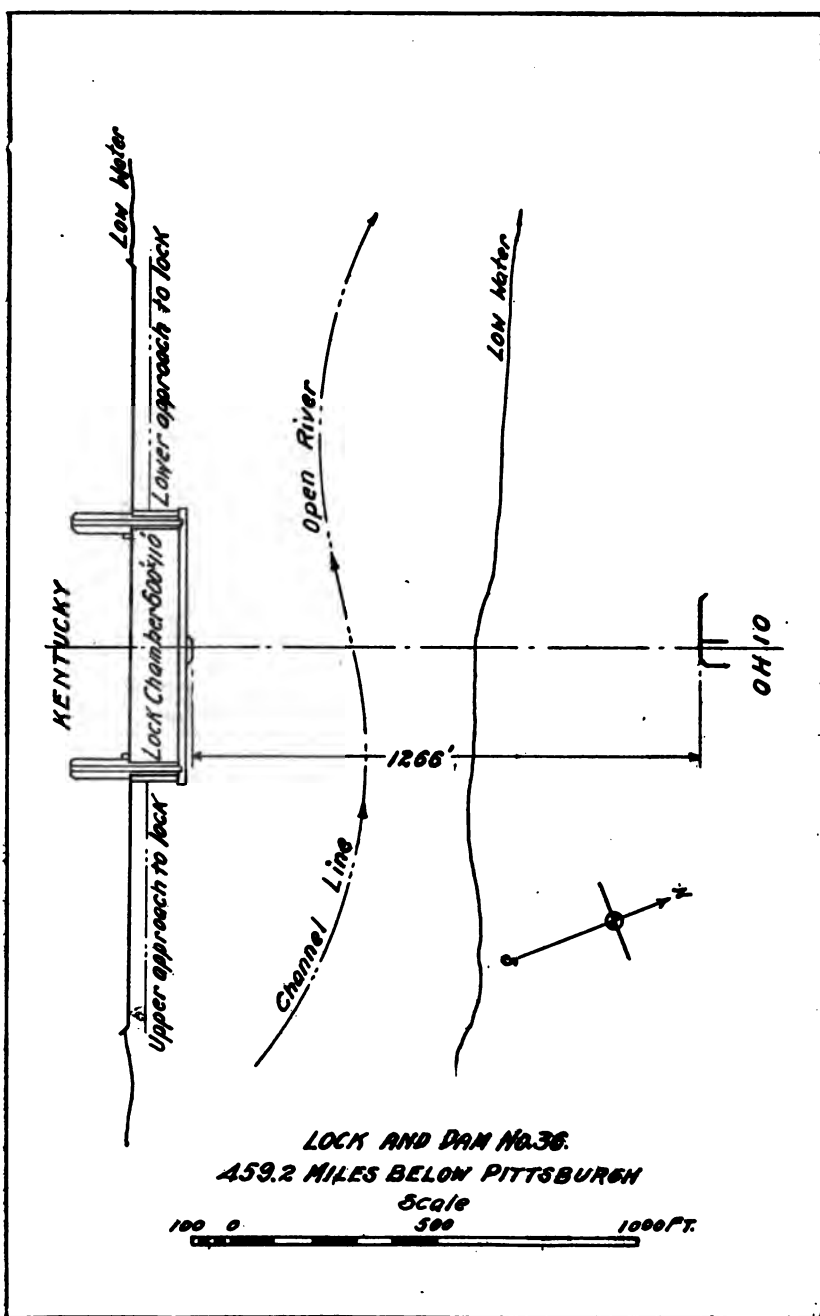


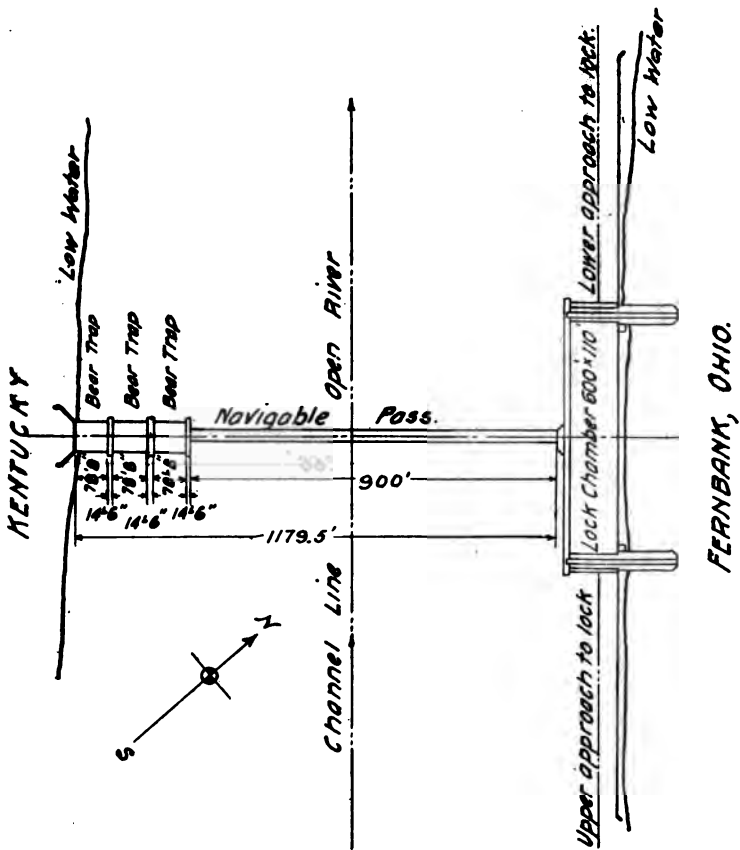
LOCK AND DAM NO. 33.
404.0 MILES BELOW PITTSBURGH
SCALE

100 0 500 1000 FT.



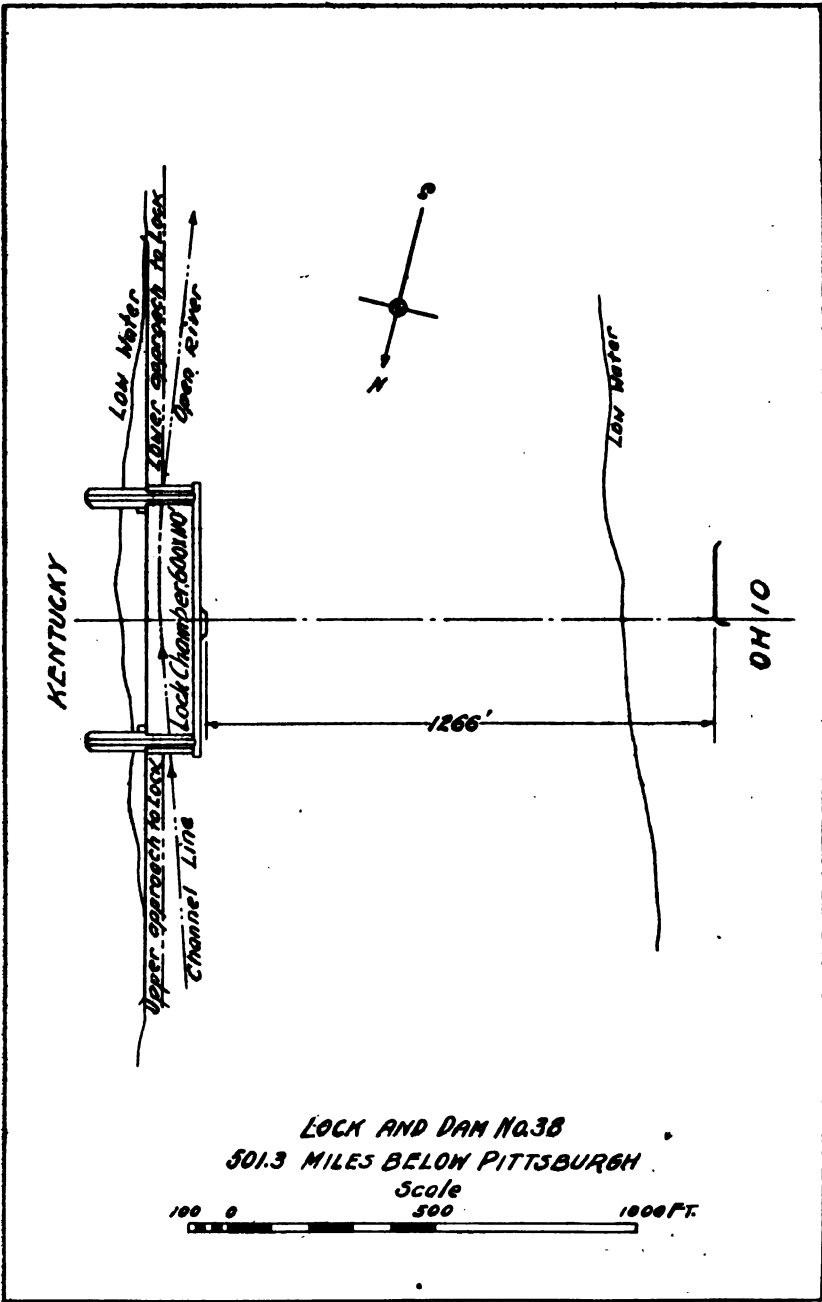


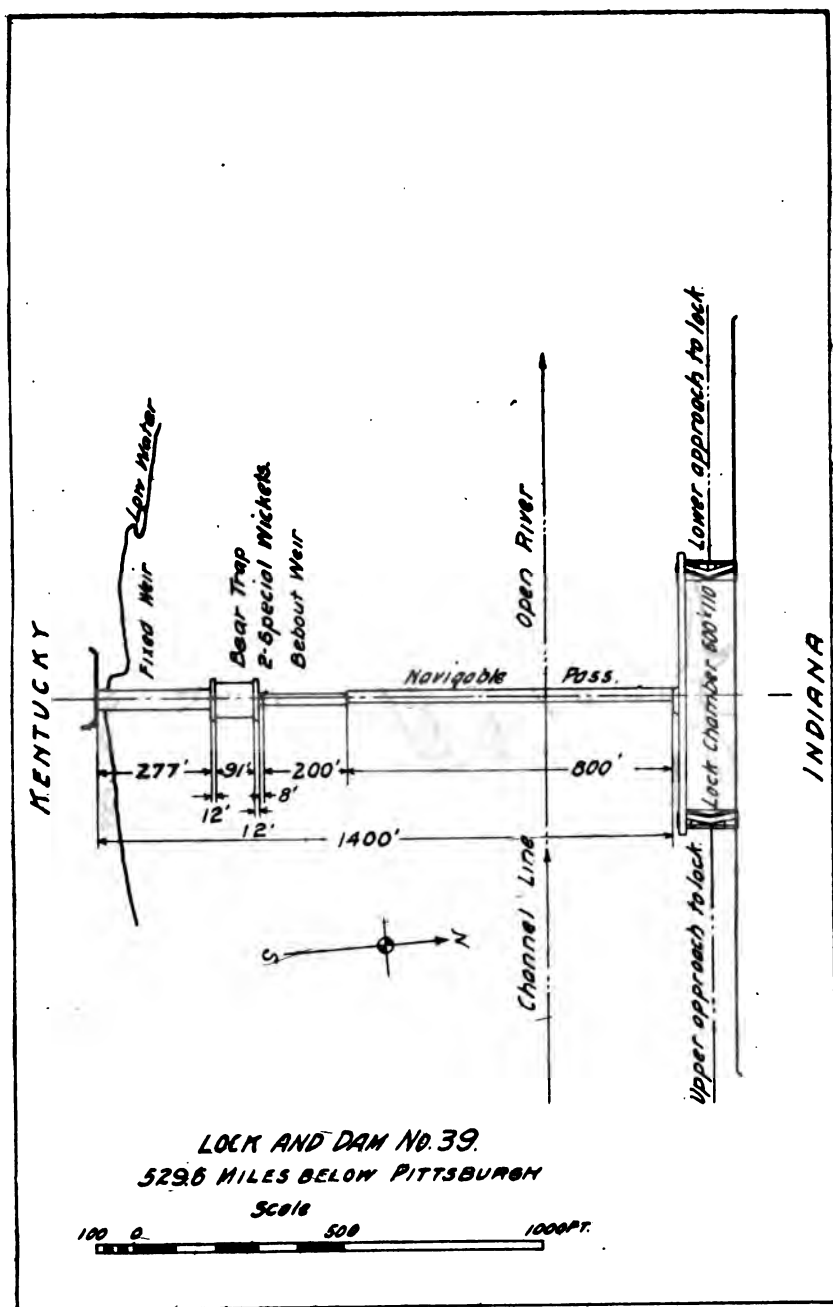


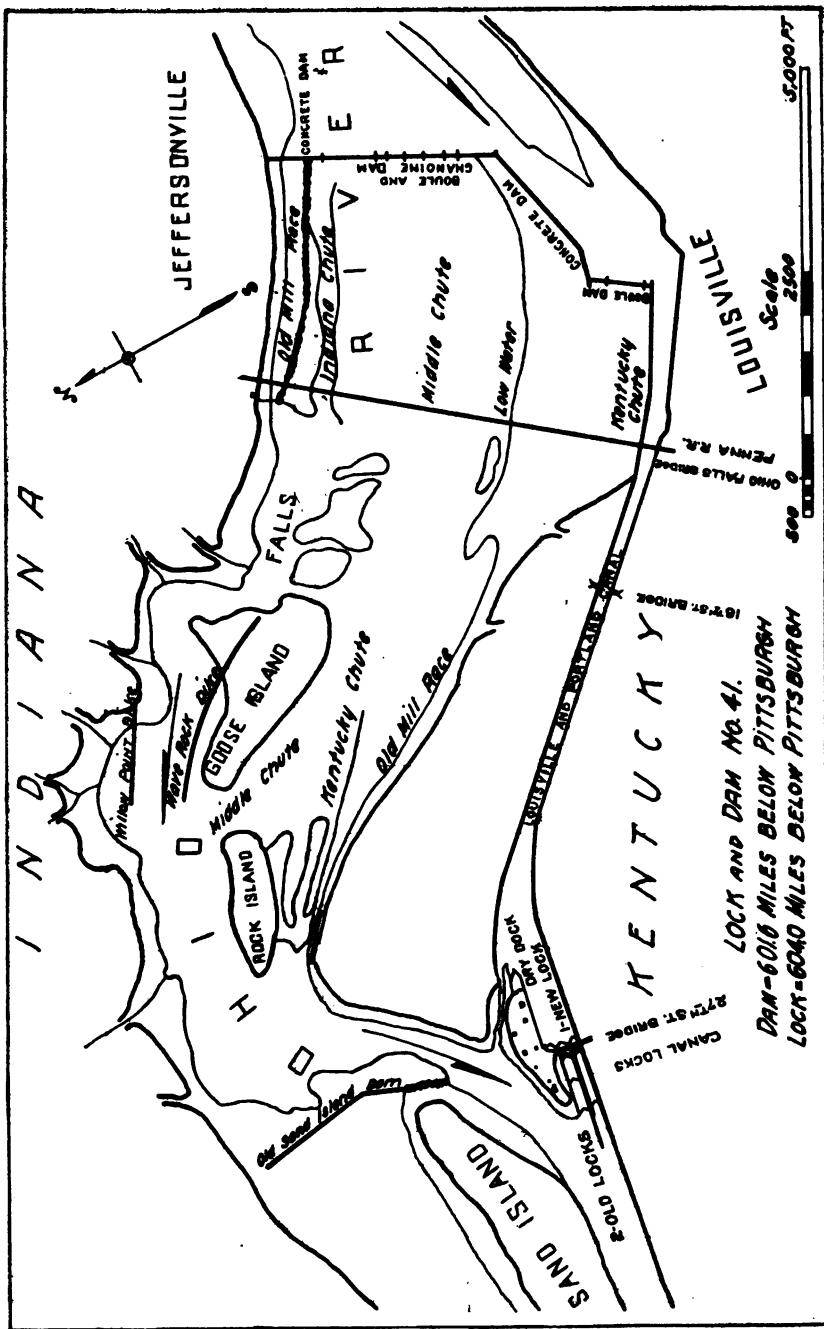


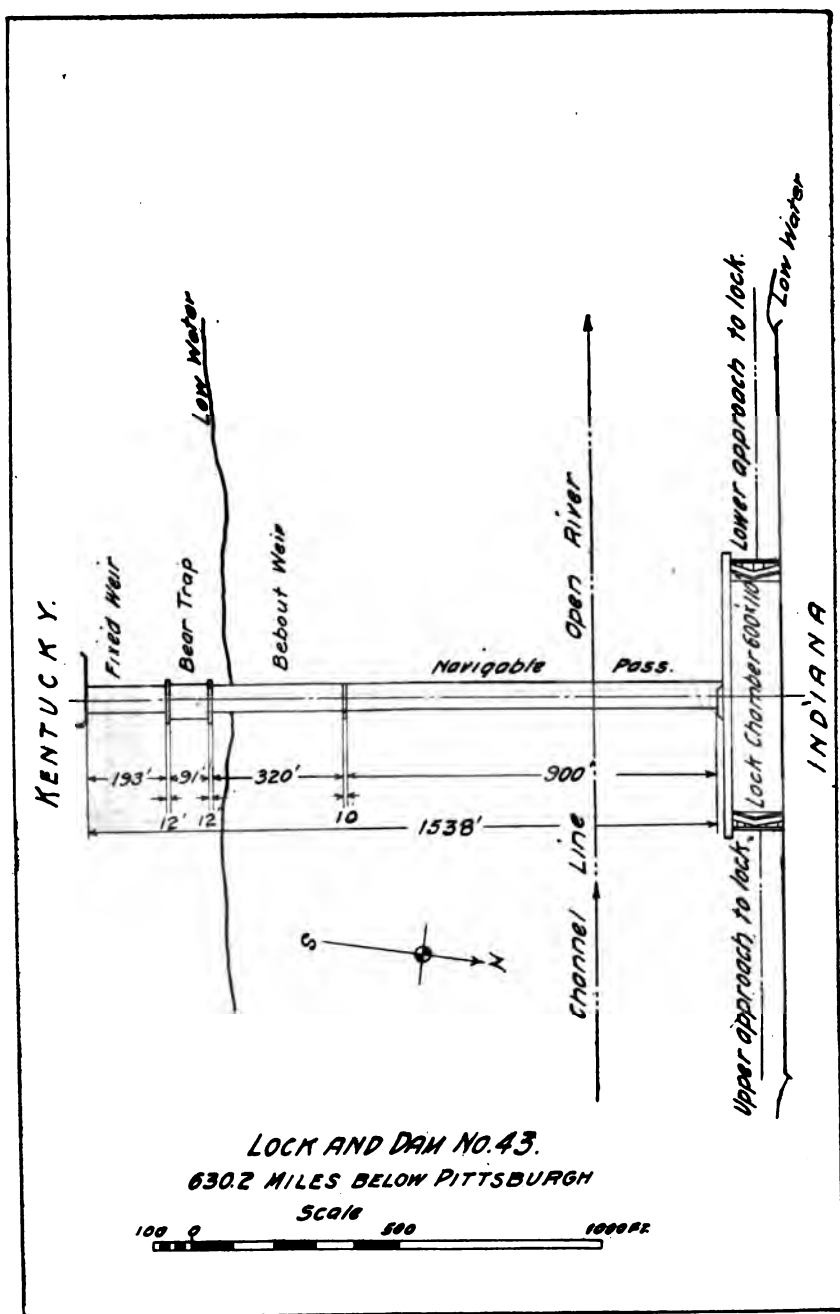
LOCK AND DAM NO. 37.
481.3 MILES BELOW PITTSBURGH

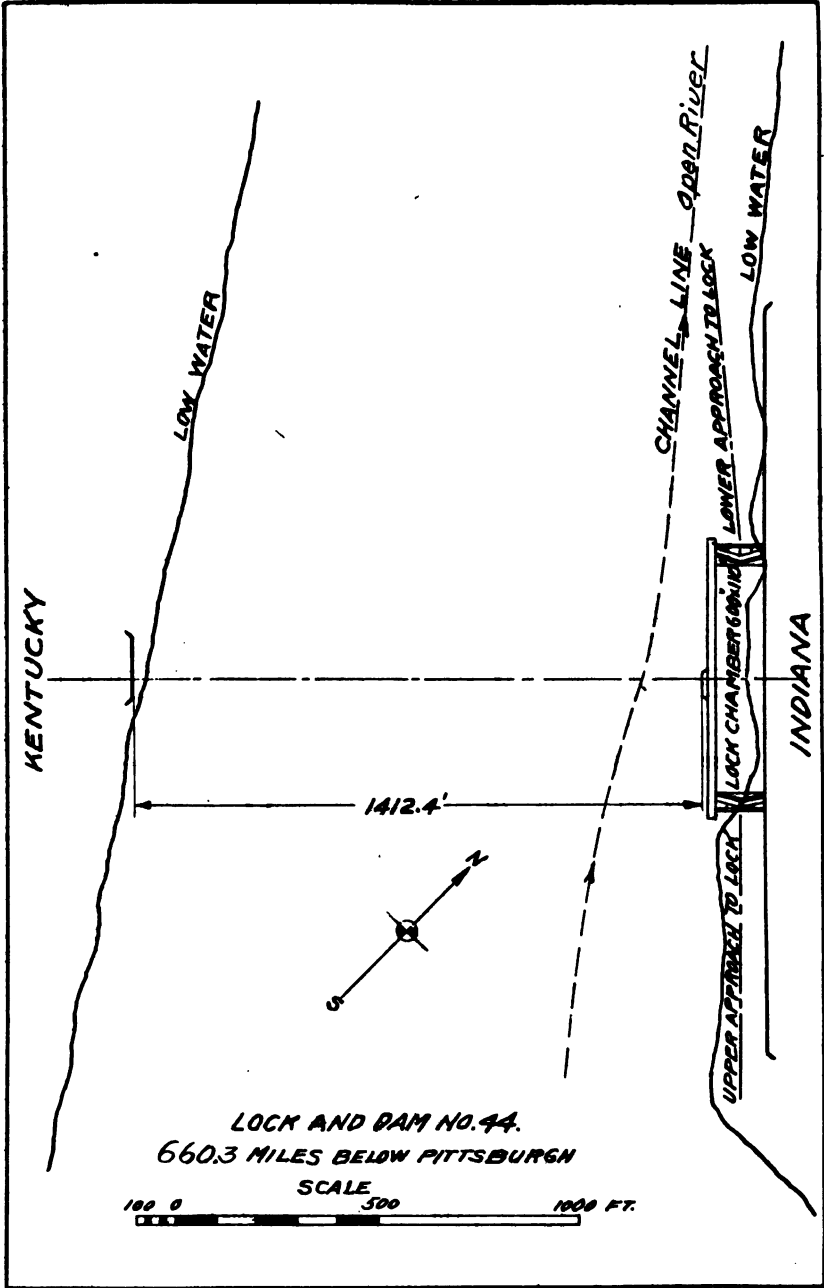


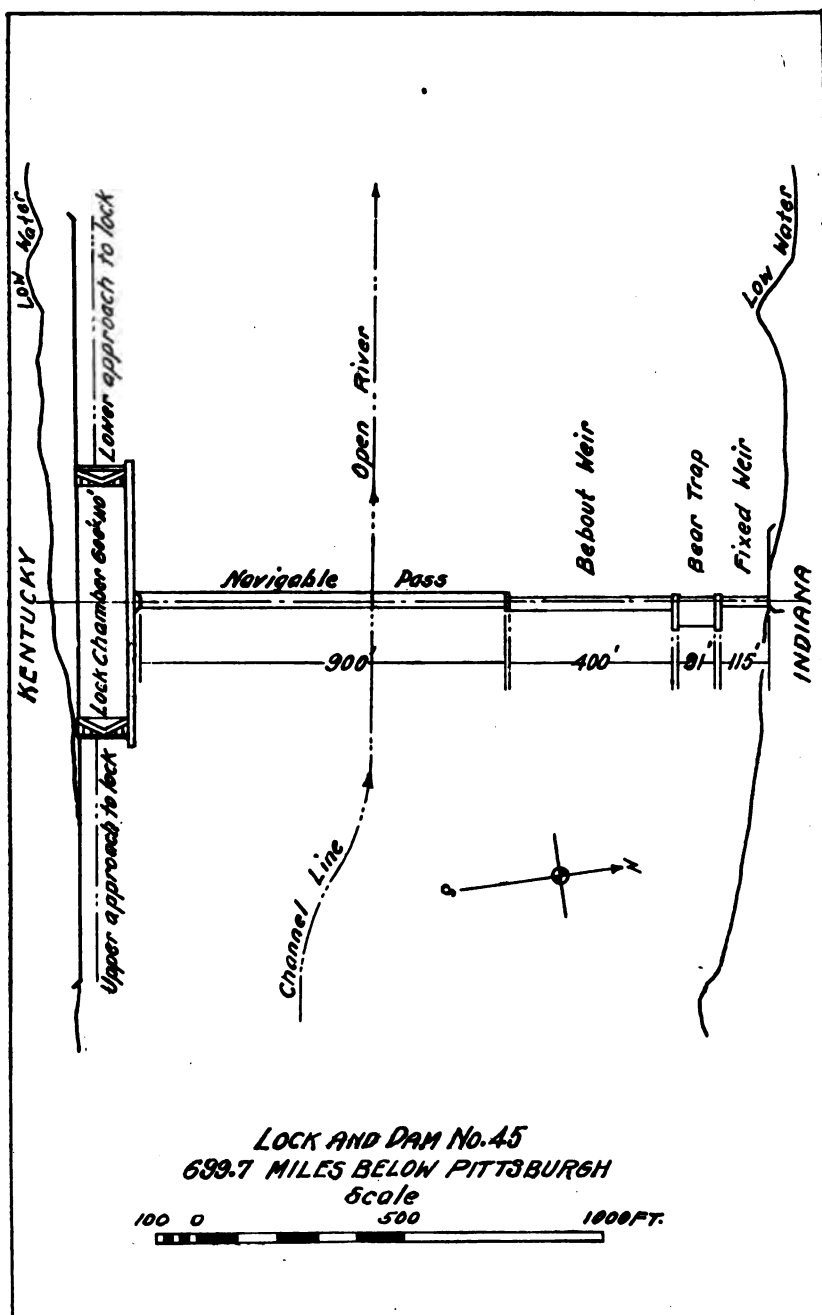


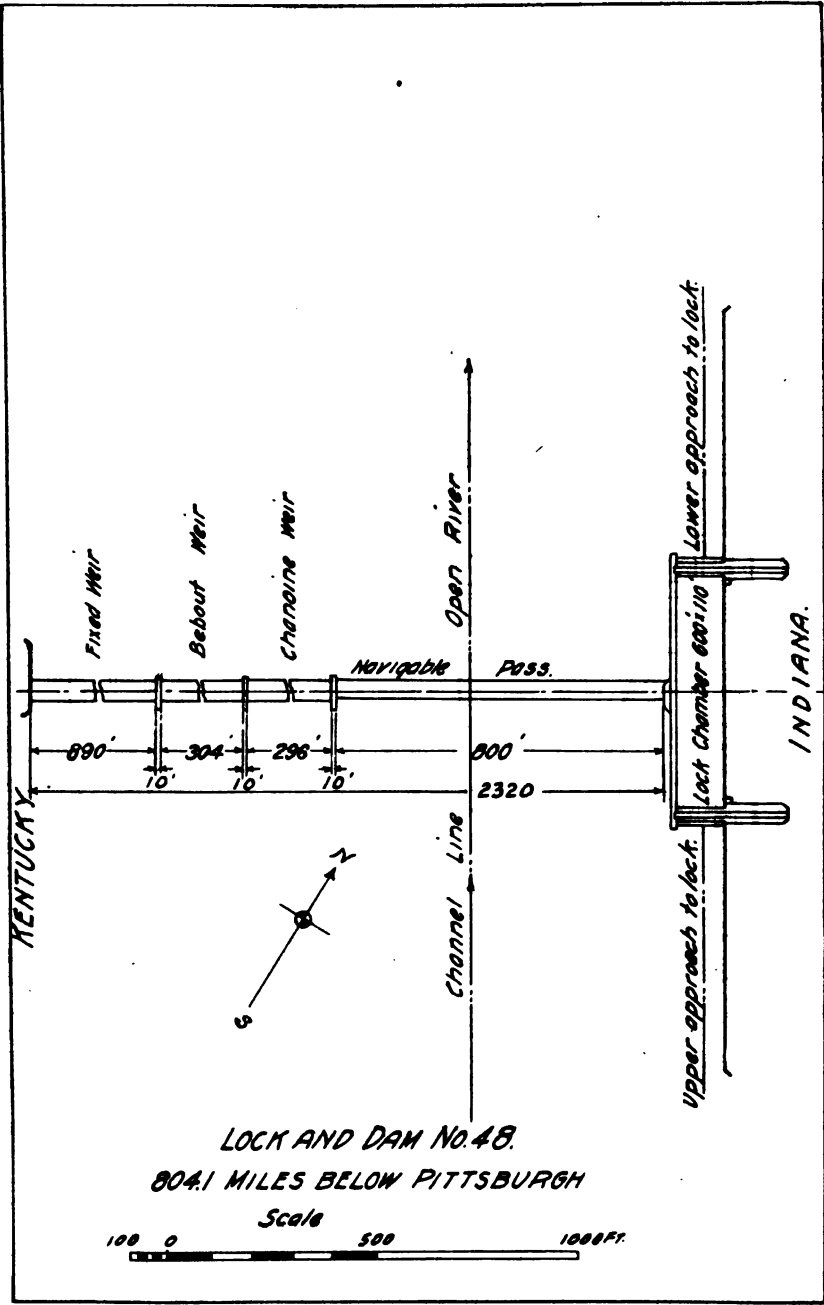












Ohio River bridges.

Dis- tance below Pitts- burgh.	Name of bridge.	Owned or operated by--	When con- structed.	Constructed under the laws of--	Kind.	Length.		Channel spans.				Height of flood of 1864 above low water.
						Over river.	Includ- ing ap- proach- es.	Main chan- nel.	Side chan- nel.	Width at low water.	Height.	
Miles.						Fed.	Fed.	Fed.	Fed.	Fed.	Fed.	Fed.
0	Point of Pittsburgh (sus- pension).	City of Pittsburgh.	1876-77.	Apr. 29, 1874.	Highway.	1,090	1,090	770	.....	.....	75.2	34.0
2.0	Ohio Connecting Railway.	Pennsylvania System.	1898-1890; rebuilt 1913-1915.	Dec. 17, 1872; Feb. 14, 1883, May 14, 1888.	Railroad.	3,132	4,470	508	395	.....	82.0	30.3
5.0	Neville Island Upper (back channel).	Allegheny County, Pa.	1890.	1872 and 1883.	Highway.	583	815	.....	187	.....	44.9	31.0
5.3	Pittsburgh & Lake Erie R. R., upper (back chan- nel).	Pittsburgh & Lake Erie R. R.	1900-1901.	do.	Railroad.	1,000	1,000	.....	245	.....	29.8	31.0
9.5	Neville Island, lower (back channel).	Pittsburgh Ry. Co.	1894.	do.	Highway.	900	1,090	.....	210	.....	38.5	35.0
11.7	Sewickley.	Allegheny County.	1908-1911.	July 13, 1892.	do.	1,072	1,867	724	.....	.....	90.0	41.0
24.7	Rochester (suspension).	Beaver County.	1896-97.	1872 and 1883.	do.	1,600	2,300	782	.....	.....	90.0	44.3
25.3	Beaver.	Pittsburgh & Lake Erie R. R.	1908-1910.	do.	Railroad.	1,244	1,779	734	.....	.....	90.0	45.4
43.1	East Liverpool (suspension).	East Liverpool Bridge Co.	1896-97.	do.	Highway.	1,485	1,695	692	.....	.....	90.0	46.0
44.3	do.	Newell Bridge Co.	1905.	do.	do.	1,590	1,725	725	.....	.....	94.32	46.0
66.2	Steubenville.	Pittsburgh, Cincinnati, Chi- cago & St. Louis R. R. Co.	1892-93.	July 14, 1892.	Railroad.	1,903	1,903	303	.....	.....	89.6	49.2
67.6	Steubenville (suspension).	Steubenville Bridge Co.	1905.	1872 and 1883.	Highway.	1,793	1,622	675	.....	.....	94.1	47.6
68.3	La Belle.	Ohio-W. Va. Bridge Co.	1916-17.	1872, 1883, and 1906.	Railroad.	1,590	1,502	645	215	.....	90.0	47.6
71.1	Mingo.	Cross Creek R. R. Co.	1904.	1872 and 1883.	do.	1,297	2,089	675	.....	.....	90.5	49.0
88.7	Wheeling & Martins Ferry.	Wheeling Terminal R. R. Co.	1899-90.	do.	do.	1,502	2,089	500	.....	.....	90.0	49.1
89.9	Wheeling (suspension).	Wheeling & Belmont Bridge Co.	1846-49; re- built 1890.	Aug. 31, 1852.	Highway.	980	.....	980	.....	.....	91.5	51.2
90.0	Wheeling.	Wheeling Bridge Co.	1890-91.	1872 and 1883.	do.	997	1,816	507	.....	.....	90.7	51.2
94.1	Bellaire.	Baltimore & Ohio R. R.	1871-72.	July 14, 1862.	Railroad.	1,435	4,001	322	.....	.....	90.0	51.4

1 Approximate heights.

Ohio River bridges—Continued.

Dis- tance below Pitts- burgh.	Name of bridge.	Owned or operated by—	When con- structed.	Constructed under the laws of—	Kind.	Length.		Channel spans.				Height of flood of 1884 above low water.
						Over river.	Includ- ing ap- proach- es.	Width at low water.		Height.		
								Main chan- nel.	Side chan- nel.	Above low water, 1884.	Above high water, 1884.	
<i>Miles.</i>						<i>Fed.</i>	<i>Fed.</i>	<i>Fed.</i>	<i>Fed.</i>	<i>Fed.</i>	<i>Fed.</i>	<i>Fed.</i>
171.3	Marietta.....	Ohio River Bridge & Ferry Co.	1903.....	1872 and 1883.....	Highway.....	1,818	2,448	625.5	577.5	94.2	42.7	51.5
183.7	Parkersburg.....	Baltimore & Ohio R. R.....	1870-71.....	July 14, 1862.....	Railroad.....	1,544	4,200	326	326	90.0	36.5	53.5
183.76	Parkersburg (suspension).....	Parkersburg-Ohio Bridge Co.	1915-16.....	1872, 1883, and 1906.....	Highway.....	1,910	2,930	756	359	90.0	36.5	53.5
264.3	Point Pleasant.....	Kanawha & Michigan R. R.....	1882-83.....	1872.....	Railroad.....	1,370	4,920	400		91.4	30.7	60.7
315.1	Kenova.....	Norfolk & Western R. R.....	1890-1892; re- built 1911.....	1872 and 1883.....	do.....	1,733	3,789	500		98.0	35.6	65.1
324.1	Ashland & Ironton.....	Ashland & Ironton Bridge Co.	Under con- struction.....	do.....	Railroad and highway.....	1,856		750	357	100.0	34.8	51.5 2
348.3	Sciotoville.....	Chesapeake & Ohio North- ern R. R. Co.	1915-16.....	1872 and 1883; Jan. 2, 1915.....	Railroad.....	1,550	3,435	750	750	106.5	40.0	51.6 5
467.9	Newport & Cincinnati.....	Louisville & Nashville R. R. Co.	1871-72; re- built 1895- 1897.....	July 14, 1862; Mar. 3, 1869.....	Railroad and highway.....	1,649	(3,994) (12,784)	490		102.0	32.9	69.1
468.2	Newport & Cincinnati (Cen- tral Bridge).....	Broadway & Newport Bridge Co.	1888-1891.....	1872 and 1883.....	Highway.....	1,694	2,640	502		(102.4) (38.9)	33.3	69.1
468.7	Covington & Cincinnati (suspension).....	Covington & Cincinnati Bridge Co.	1856-1867; re- built 1898.....	State laws Ken- tucky and Ohio 1846-1865; July 14, 1862; Feb. 17, 1865.....	do.....	1,619	2,717	1,004		(92.0) (101.5)	22.9	69.1
469.3	Chesapeake & Ohio.....	Chesapeake & Ohio Bridge Co.	1888-89.....	1872 and 1883.....	Railroad and highway.....	1,830	4,812	524		105.3	36.2	69.1
470.7	Cincinnati Southern.....	Cincinnati, New Orleans & Texas Pacific R. R. Co.	1877.....	1872.....	Railroad with footway.....	1,489	3,822	500	(*)	101.5	32.4	69.1
600.5	Louisville & Jeffersonville.....	Louisville & Jeffersonville Bridge Co.	1891-1891.....	1872 and 1883.....	do.....	2,545	9,358	538	536	92.8	48.7	44.1
602.5	Ohio Falls.....	Louisville Bridge & Termi- nal Railway Co.	1867-1870; re- built 1919.....	State laws Ken- tucky 1862 and 1865; Mar. 3, 1899. June 25, 1910.....	Railroad.....	4,767	4,767	620	350	95.4	38.9	56.5
602.8	18th Street.....	United States.....	1915.....	do.....	Highway.....	*200	200			78.0	40.4	56.5
604.0	27th Street.....	do.....	1917.....	do.....	do.....	*200	200					

604.5	Kentucky & Indiana.....	Kentucky & Indiana Bridge & R. Co.	1913.....	1872 and 1883.....	Railroad and highway.....	2,563	4,554	600	600	106.0	34.9	71.1
797.8	Henderson.....	Louisville & Nashville R. R.	1883-84.....	do.....	Railroad.....	2,835	3,624	500	500	101.3	53.5	47.8
933.3	Metropolis.....	Paducah & Illinois R. R. Co.	1913.....	1872 and 1883; Jan. 11, 1915.	do.....	3,502	5,592	700	531	105.5	53.0	152.5
965.4	Calro.....	Illinois Central R. R.	1887-1889.....	1872 and 1883.....	do.....	4,393	20,246	503	503	105.2	51.38	53.82

! Approximate heights.

* From about 105 miles to about 430 miles below Pittsburgh the high water of 1913 exceeded that of 1884. The following bridges are within this reach:

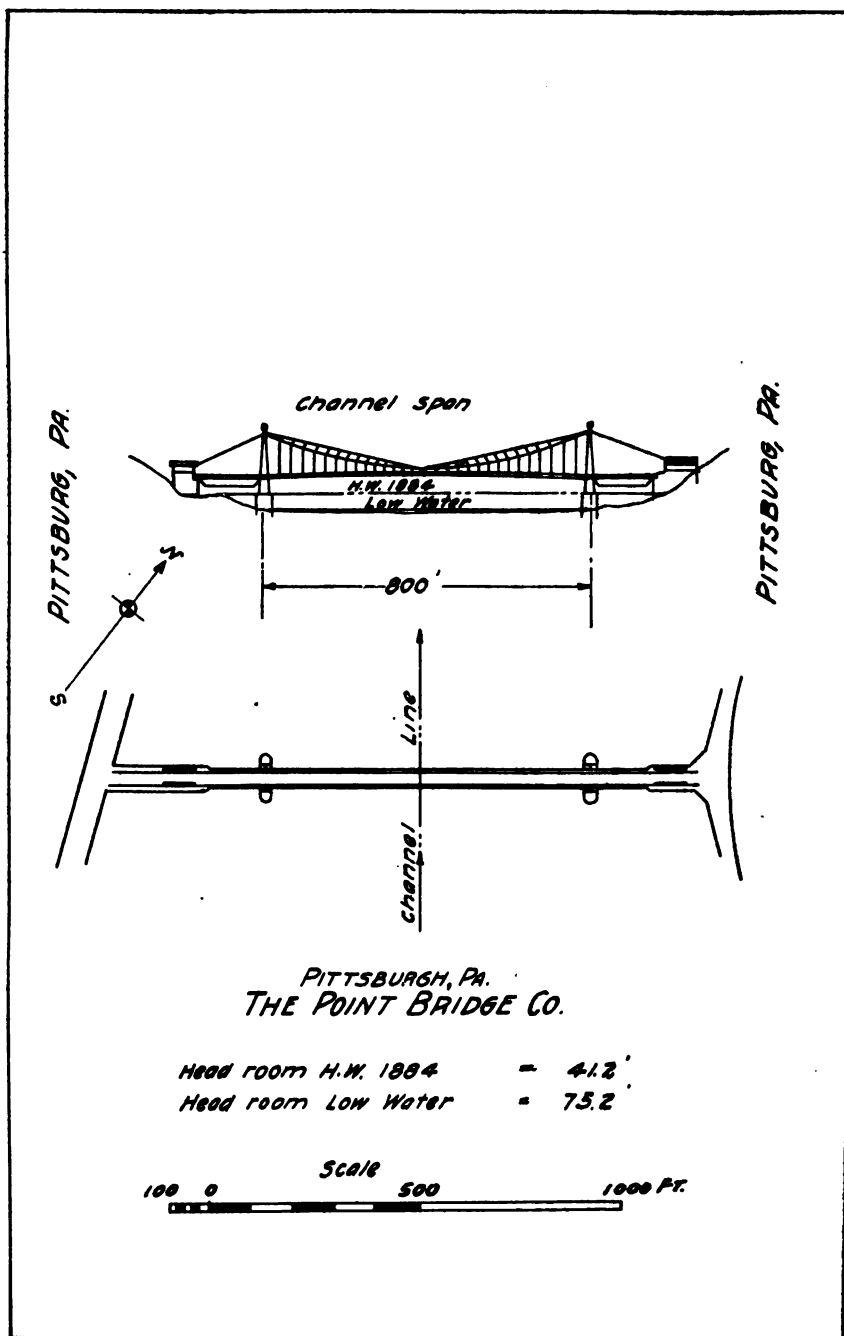
171.3 miles—Marietta—Height above high water, 1913, 37.2 feet; height of flood of 1913 above low water, 57 feet.
 183.7 miles—Parkersburg—Height above high water, 1913, 31.4 feet; height of flood of 1913 above low water, 58.6 feet.
 264.3 miles—Point Pleasant—Height above high water, 1913, 28.5 feet; height of flood of 1913 above low water, 58.6 feet.
 315.1 miles—Kenova—Height above high water, 1913, 34.2 feet; height of flood of 1913 above low water, 62.9 feet.
 324.1 miles—Ashland & Ironton—Height above high water, 1913, 33.4 feet; height of flood of 1913 above low water, 66.3 feet.
 348.3 miles—Scottdale—Height above high water, 1913, 40.6 feet; height of flood of 1913 above low water, 66.6 feet.

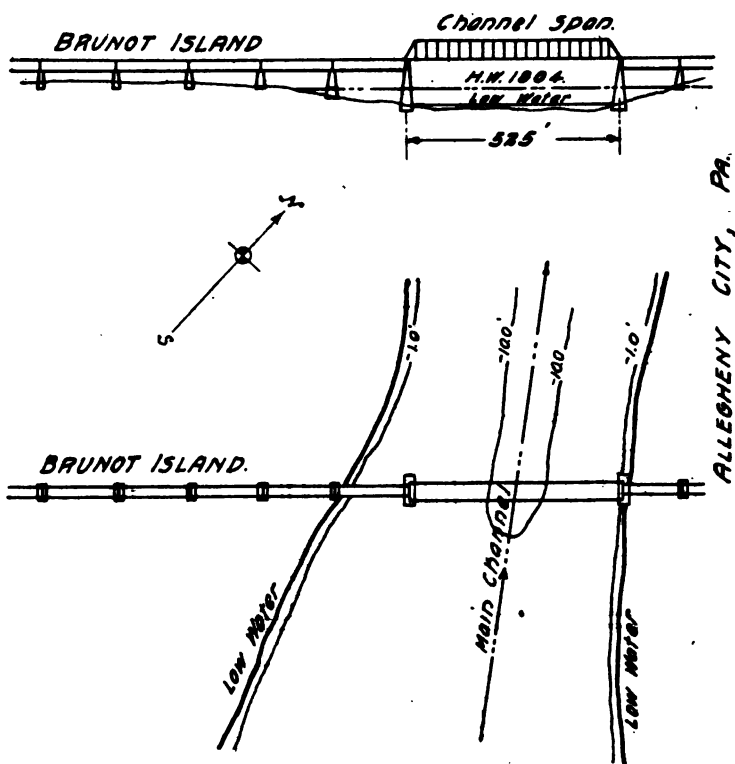
* Railroad.

* Highway.

* Plans for new superstructure approved Apr. 6, 1920, provide for a side channel 350 feet in clear at the south end of the bridge.

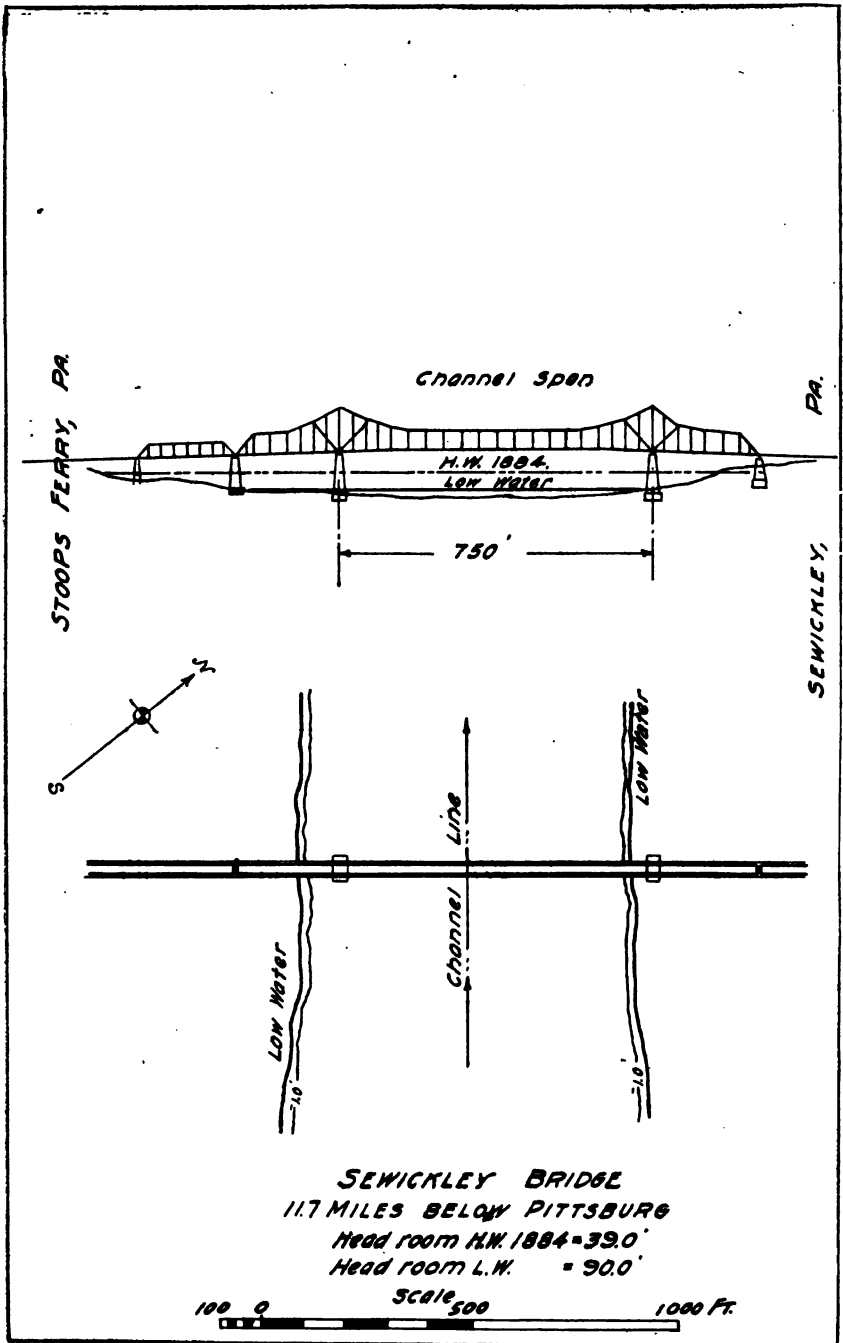
* The 18th Street and 27th Street bridges cross the Louisville & Portland Canal only; "length over river" given is length over canal.

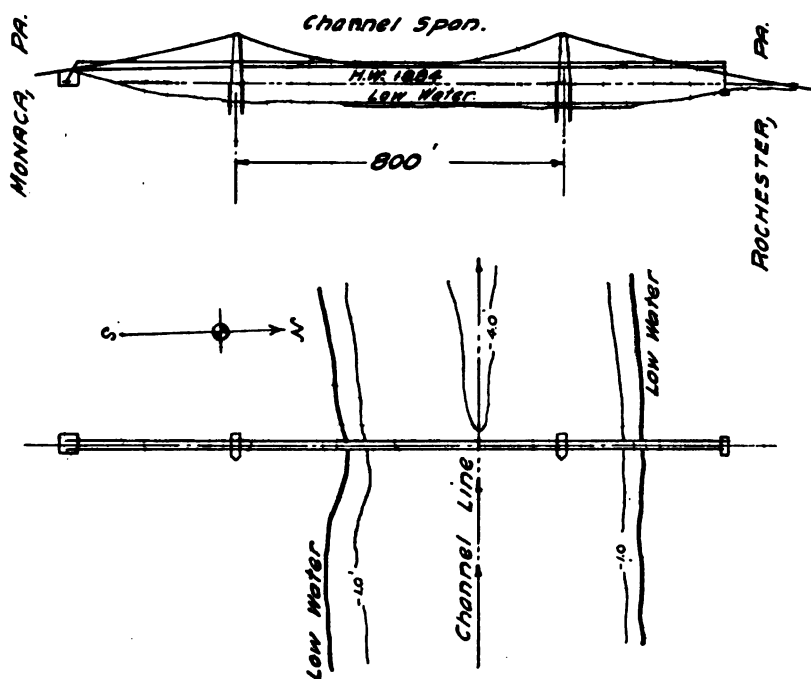




BRUNOTS ISLAND
OHIO CONNECTING R.R. BRIDGE
2 MILES BELOW PITTSBURG
Head room H.W. 1884 = 51.7
Head room L.W. = 82.0
Scale

100 0 500 1000 FT





ROCHESTER SUSPENSION BRIDGE

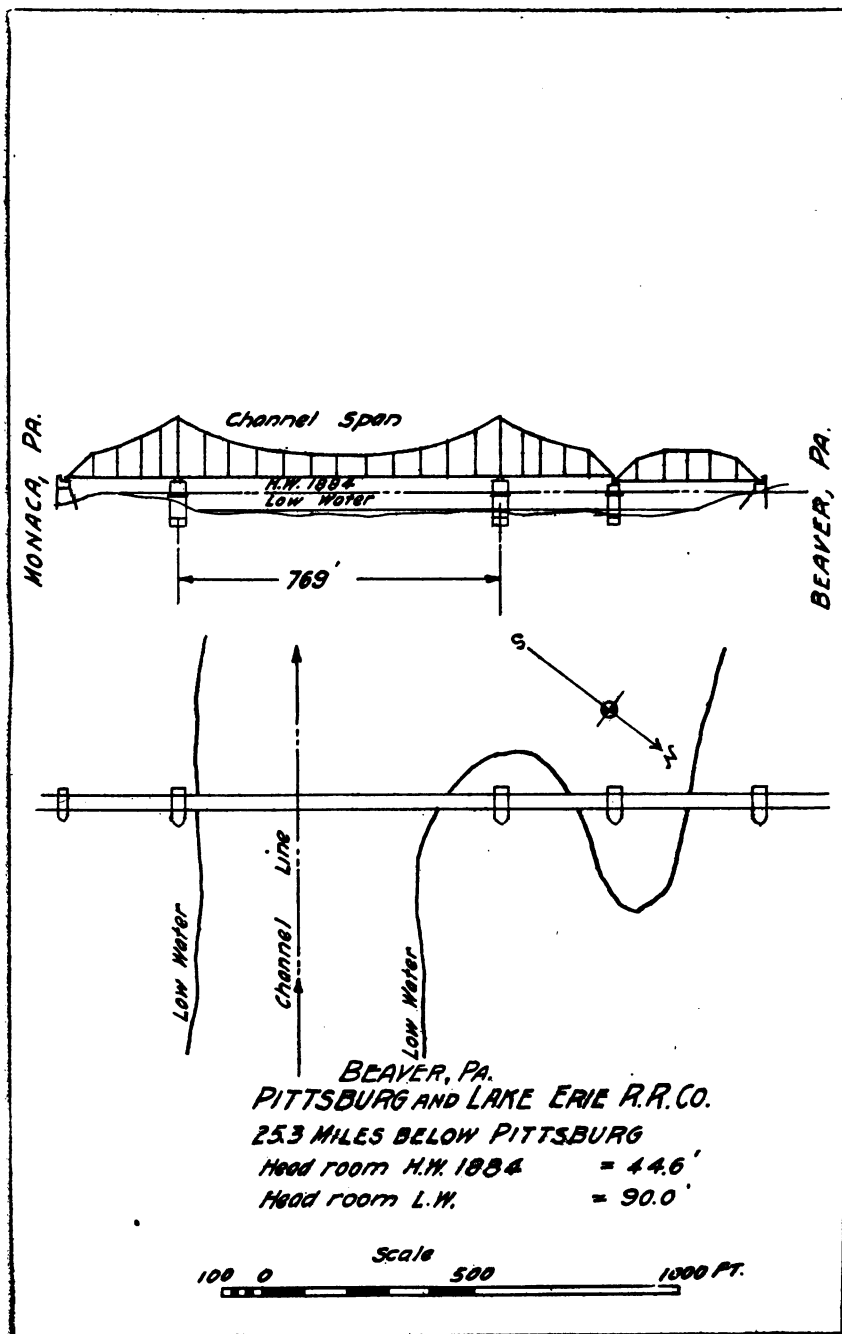
24.7 MILES BELOW PITTSBURG

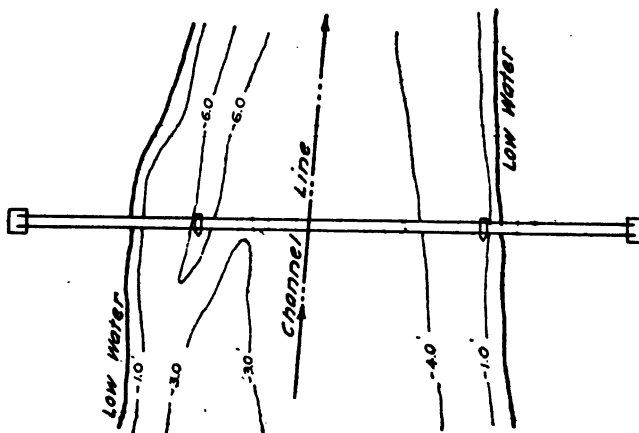
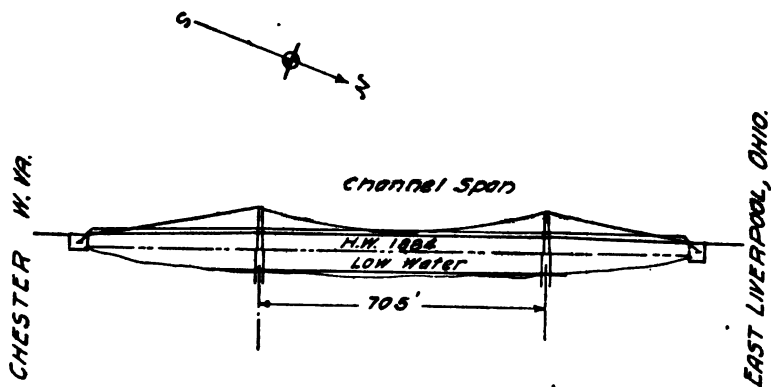
Head room H.W. 1884 = 45.7'

Head room L.W. = 90.0'

Scale

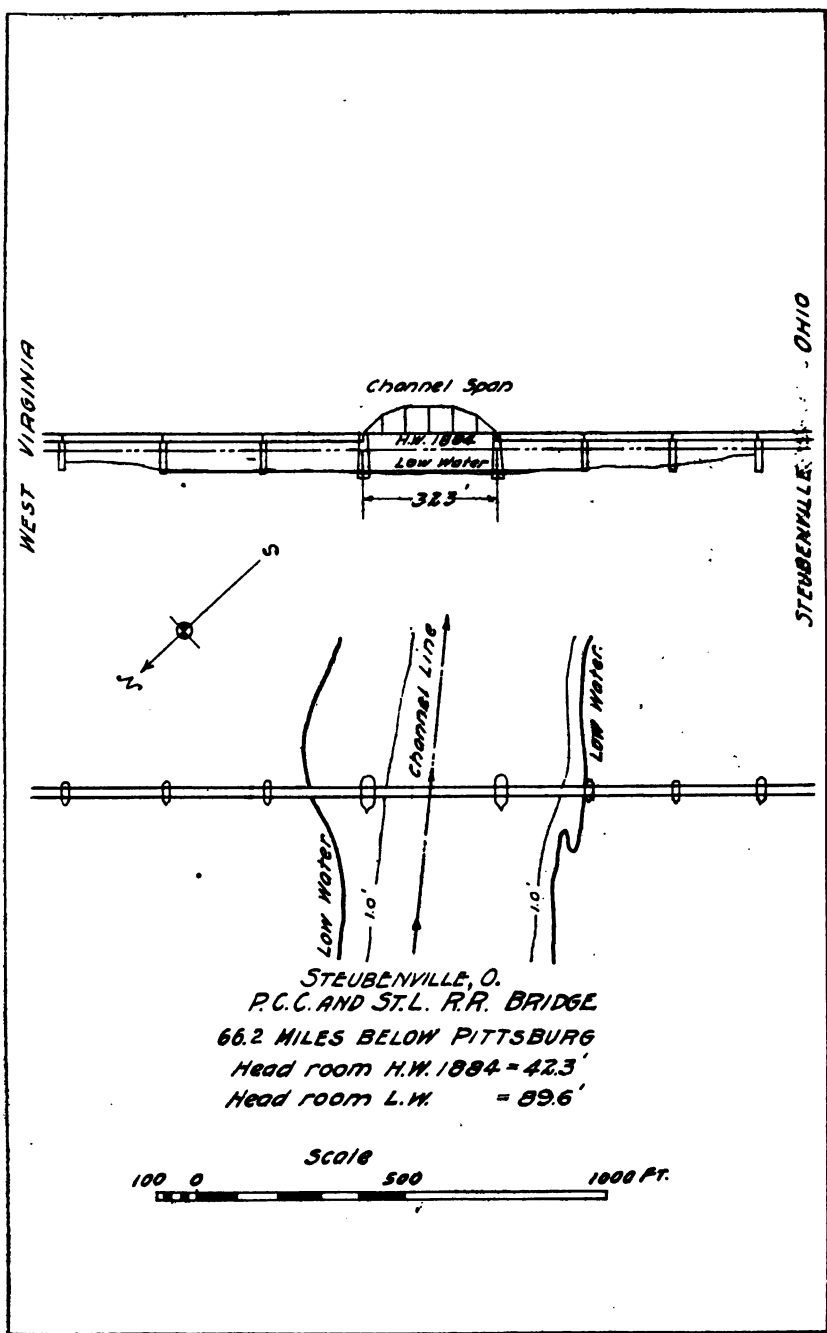


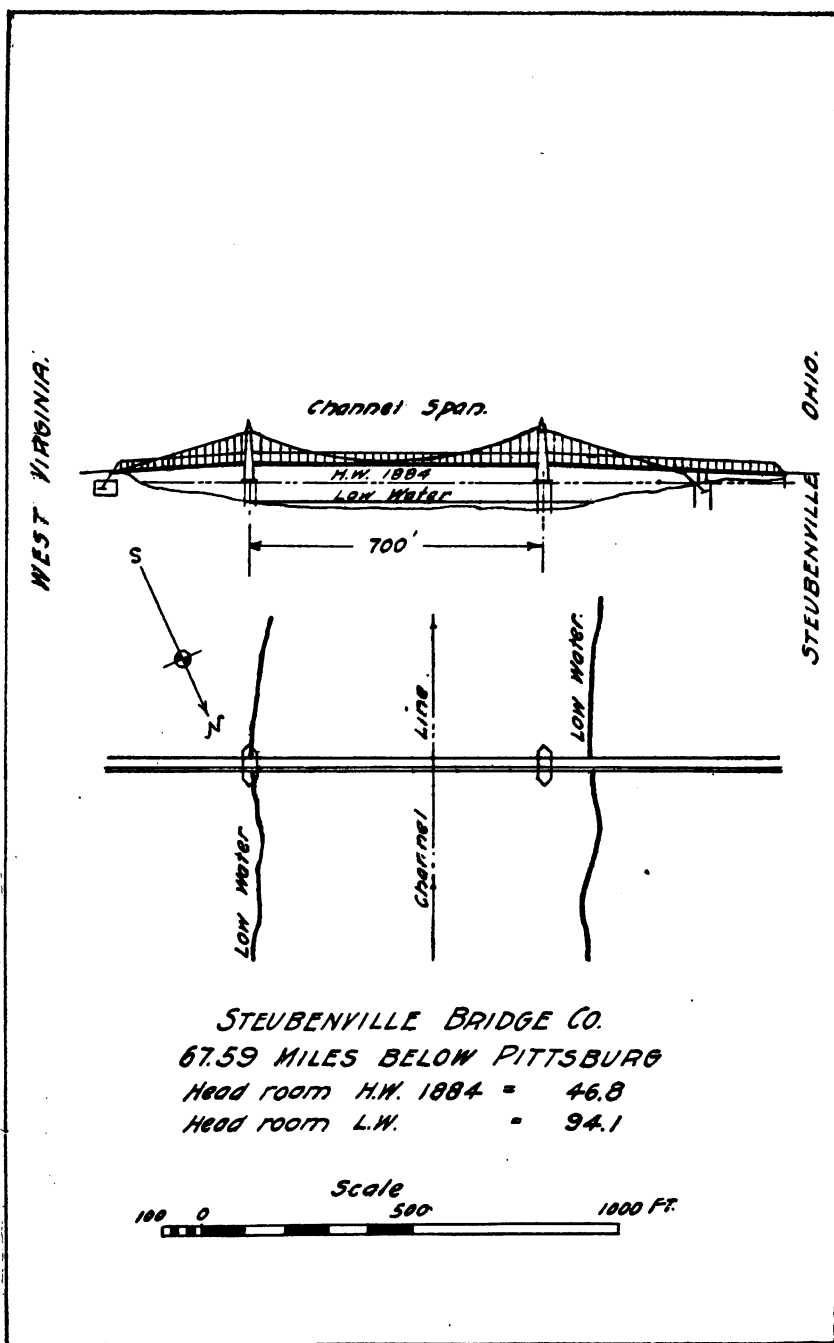


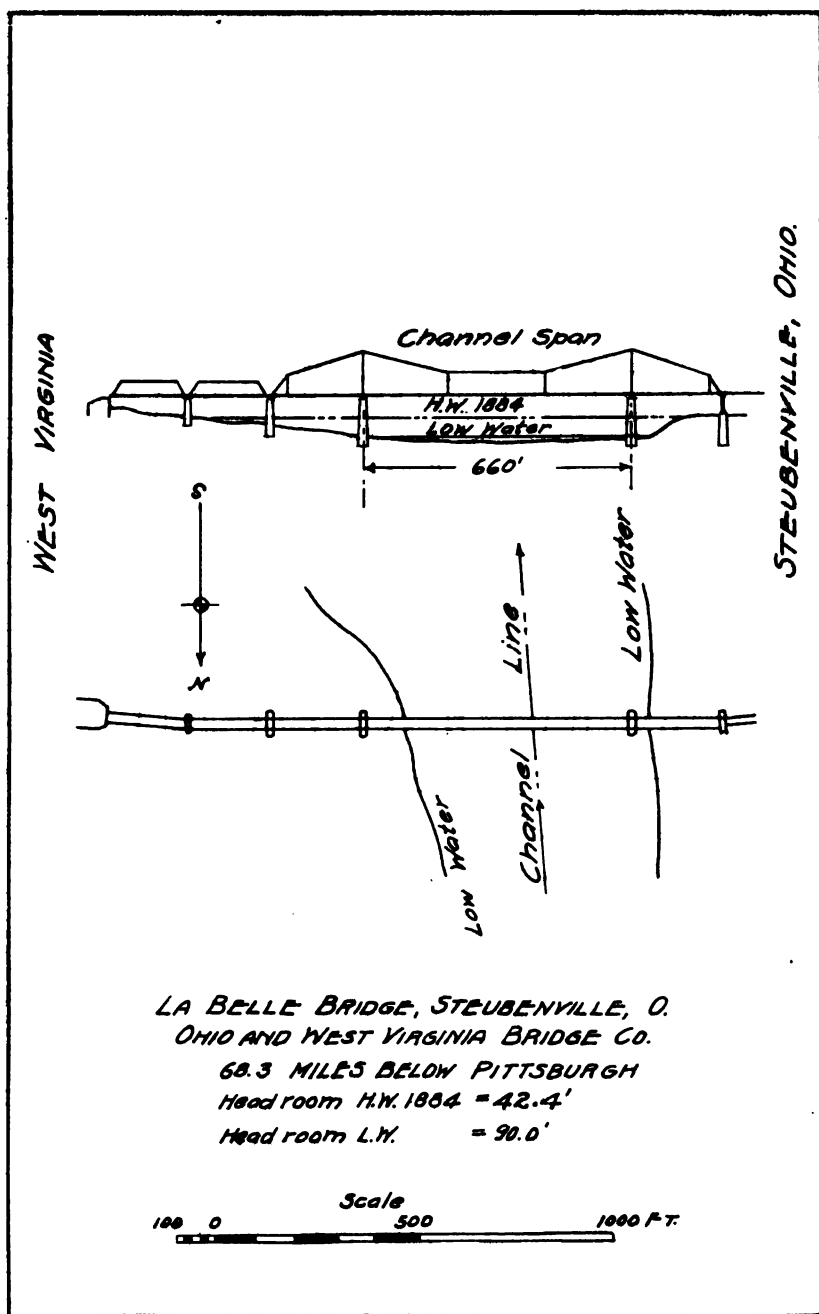


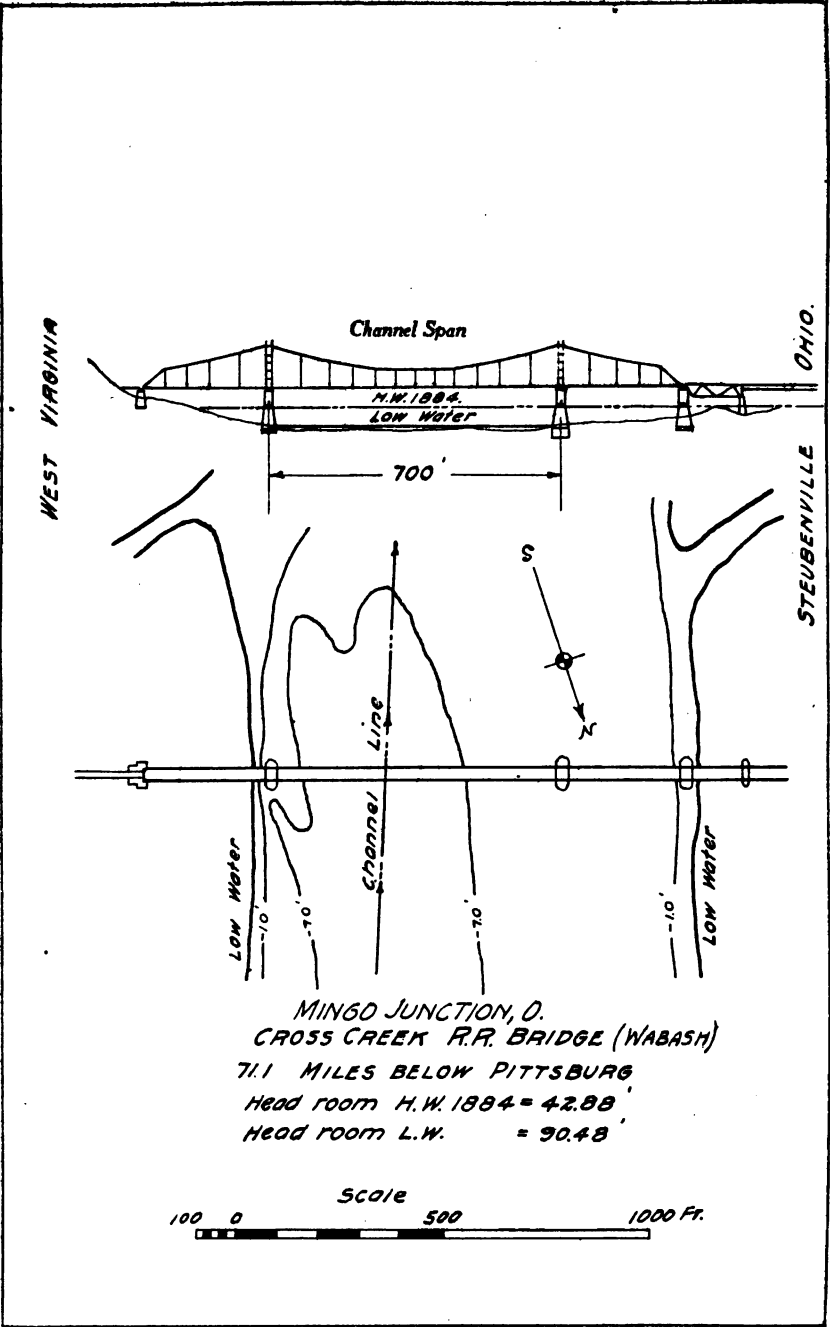
EAST LIVERPOOL SUSPENSION BRIDGE
EAST LIVERPOOL BRIDGE CO.
43.1 MILES BELOW PITTSBURG
Head room H.W. 1884 = 44.0'
Head room L.W. = 90.0'

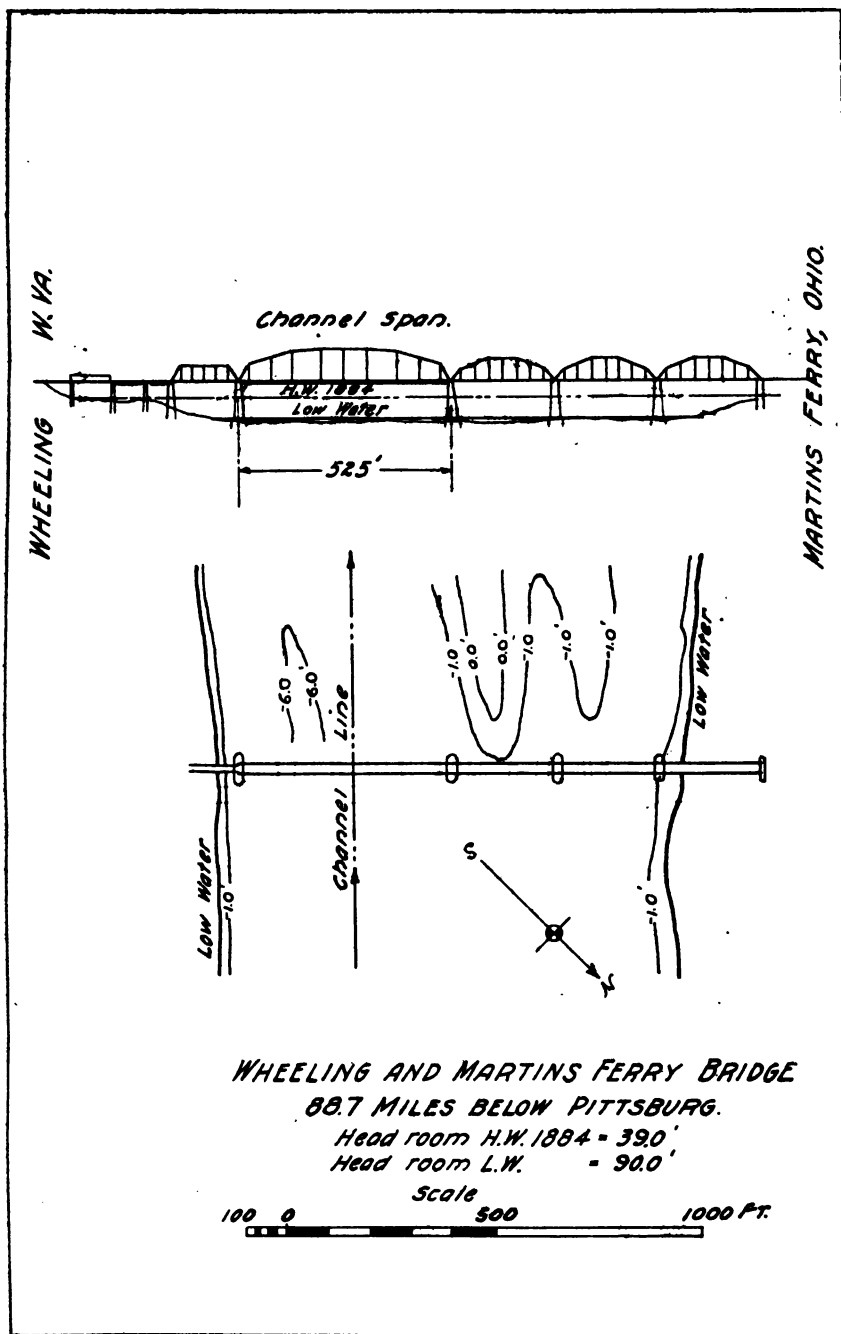
Scale
 100 0 500 1000 FT.

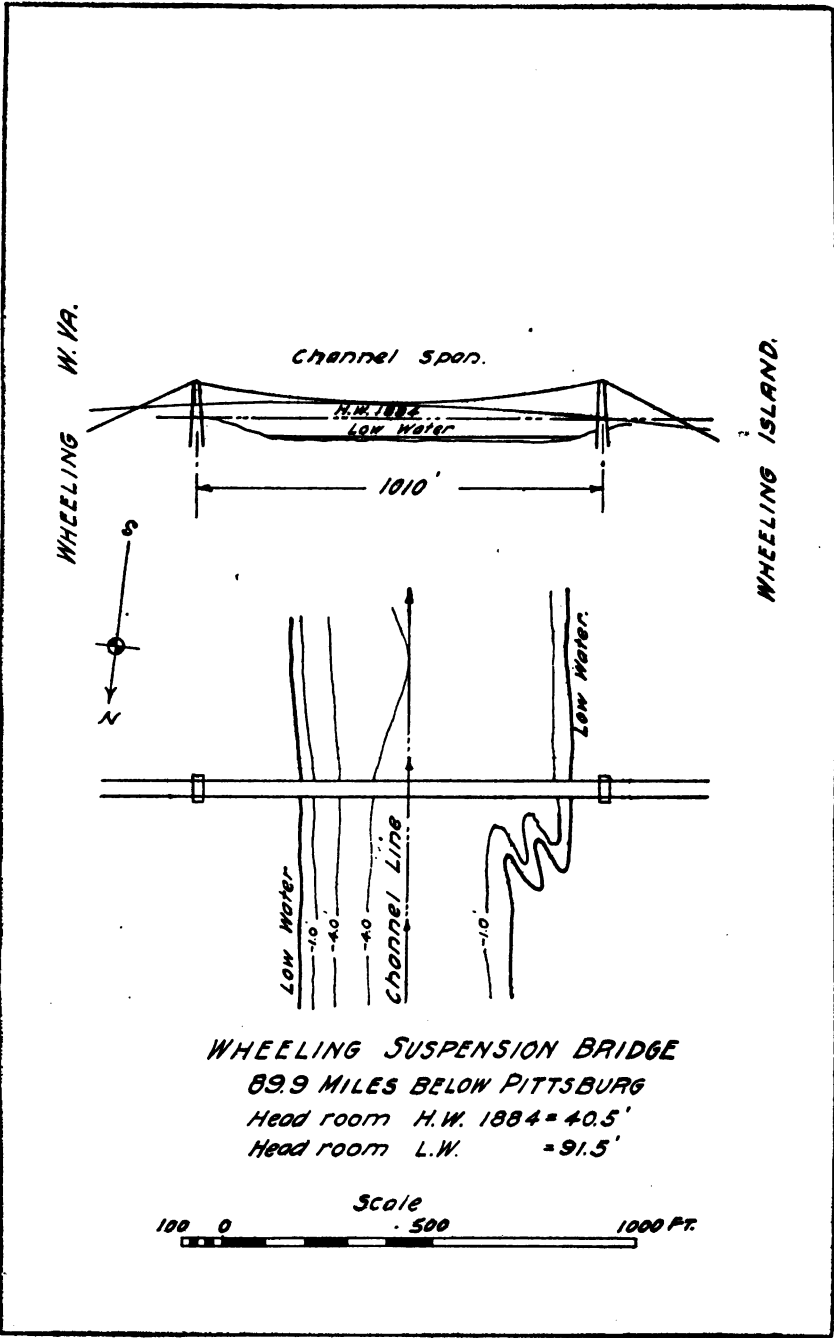


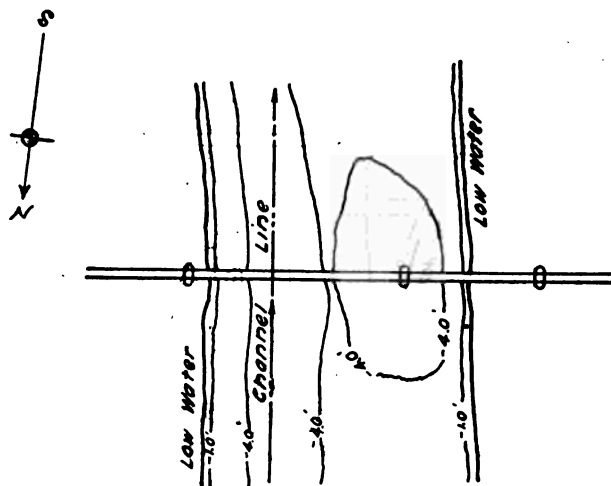
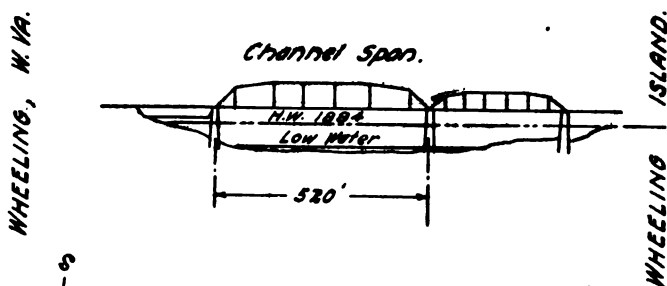












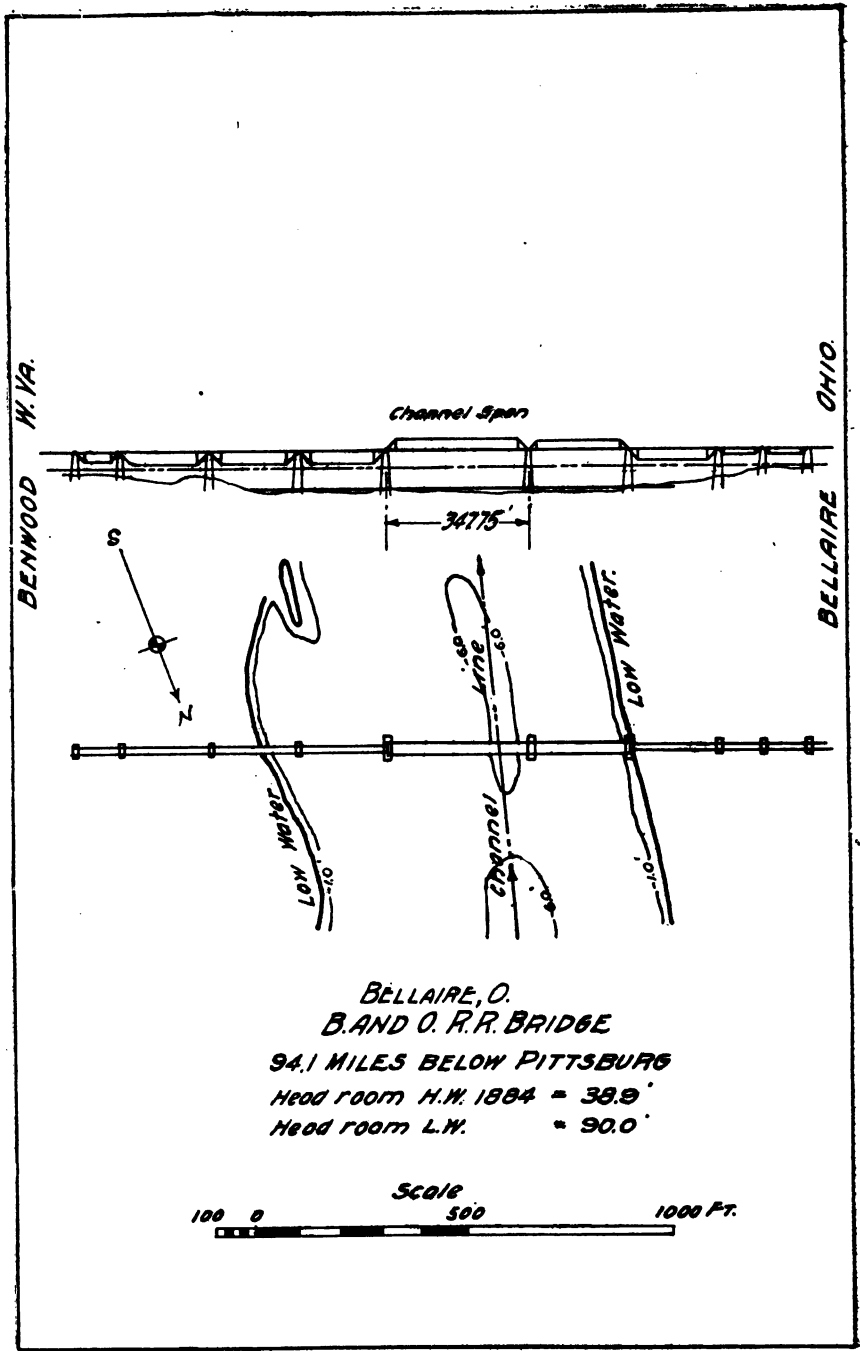
WHEELING BRIDGE

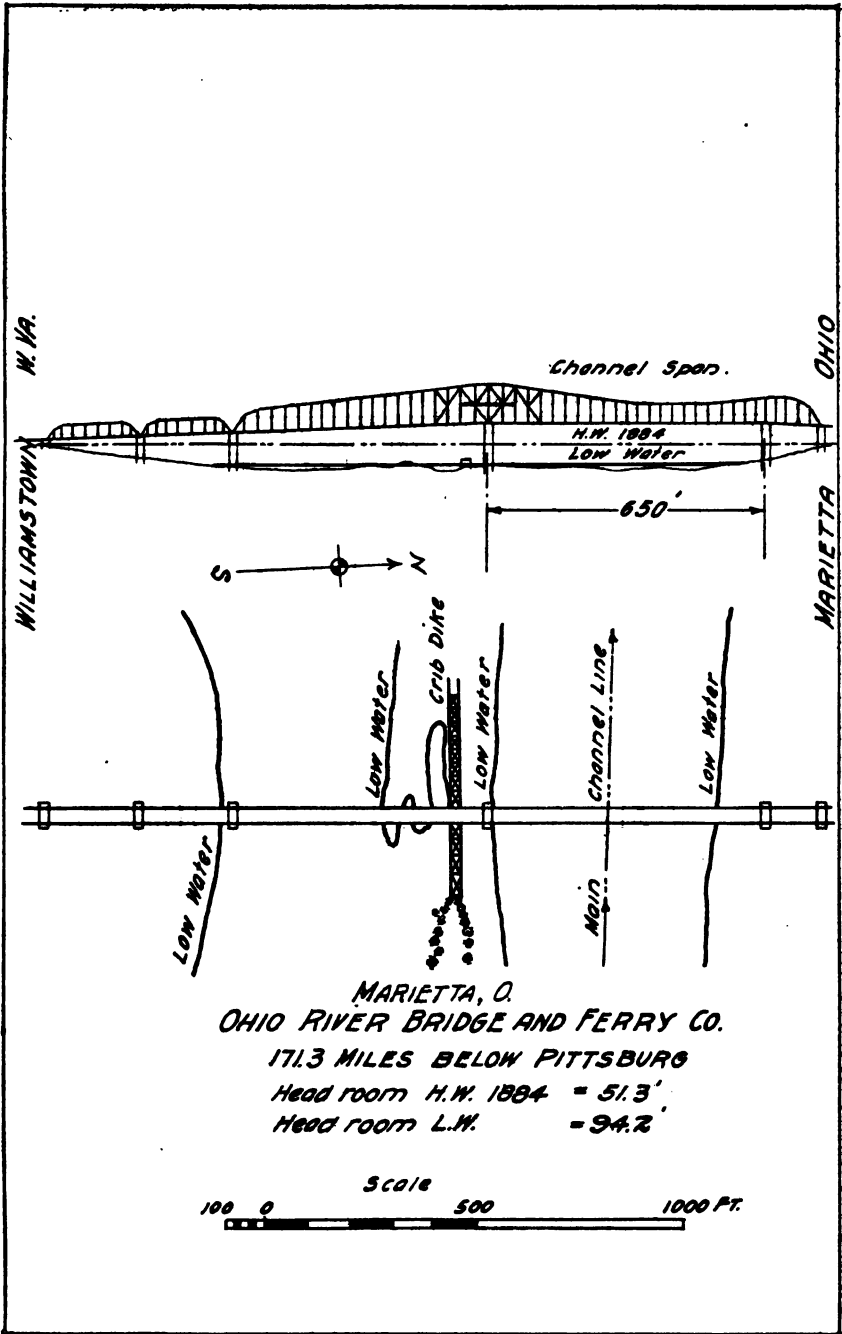
90.0 MILES BELOW PITTSBURG

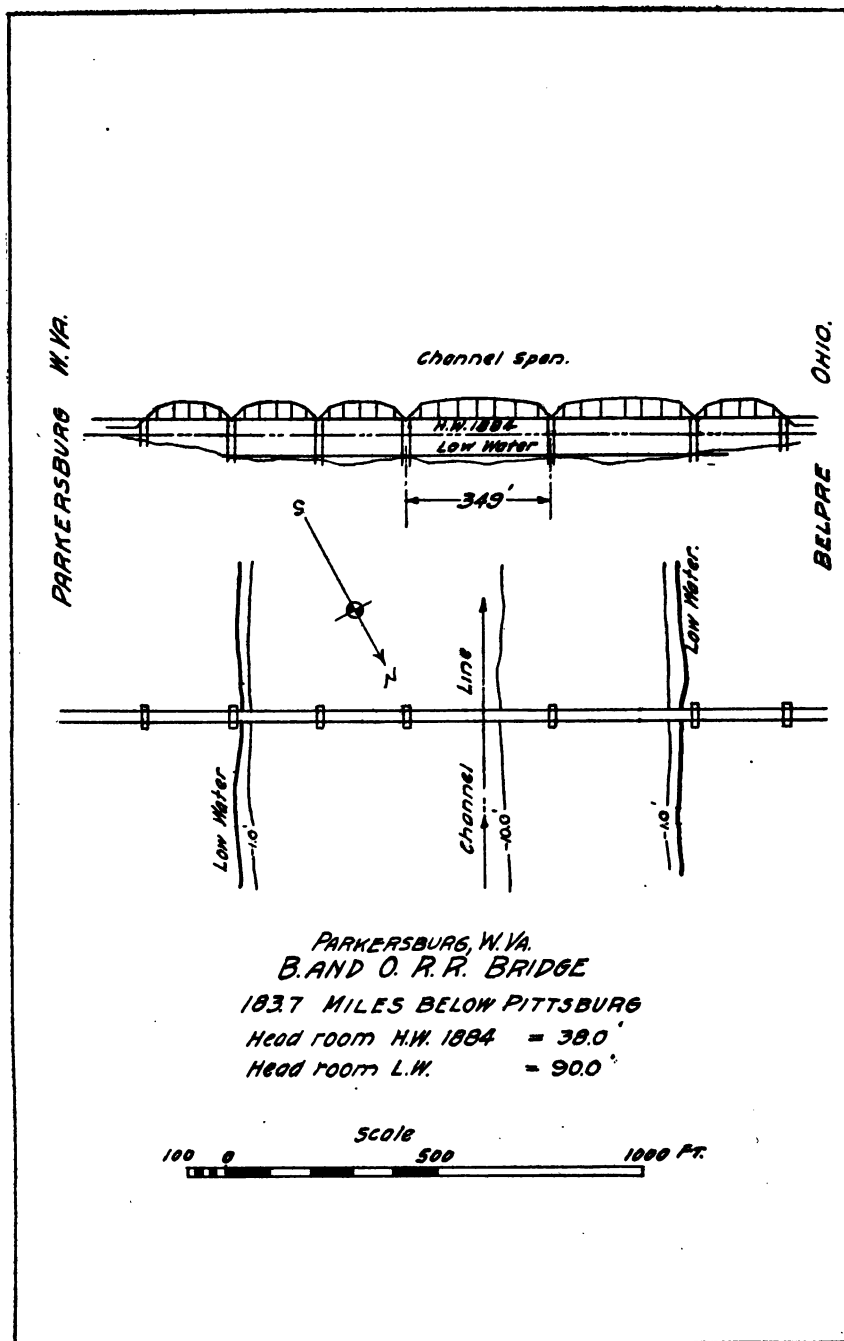
Head room H.W. 1884 = 39.7'

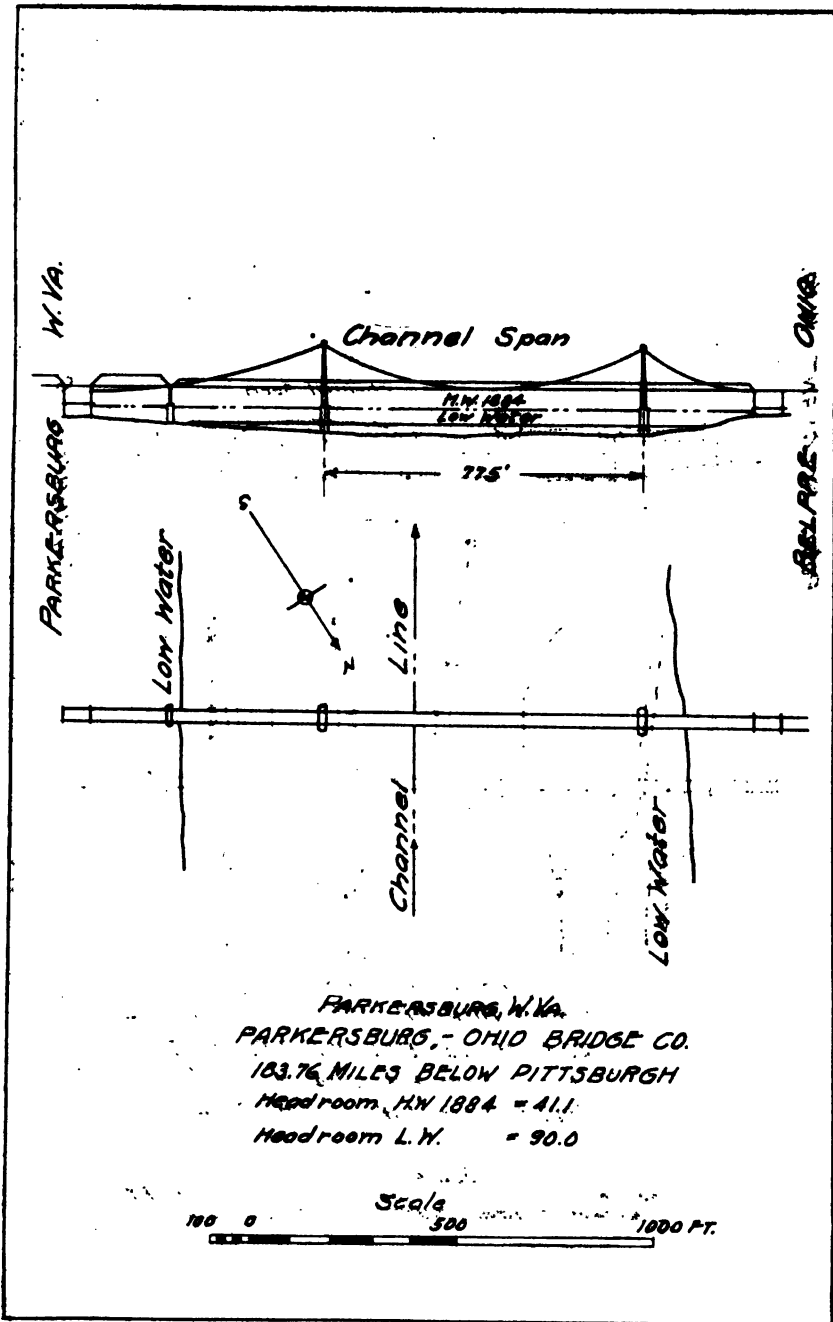
Head room L.W. = 94.7'





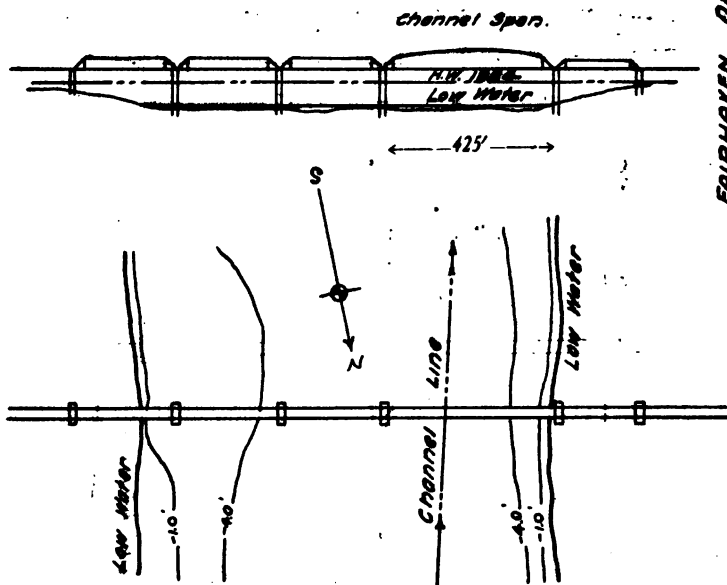






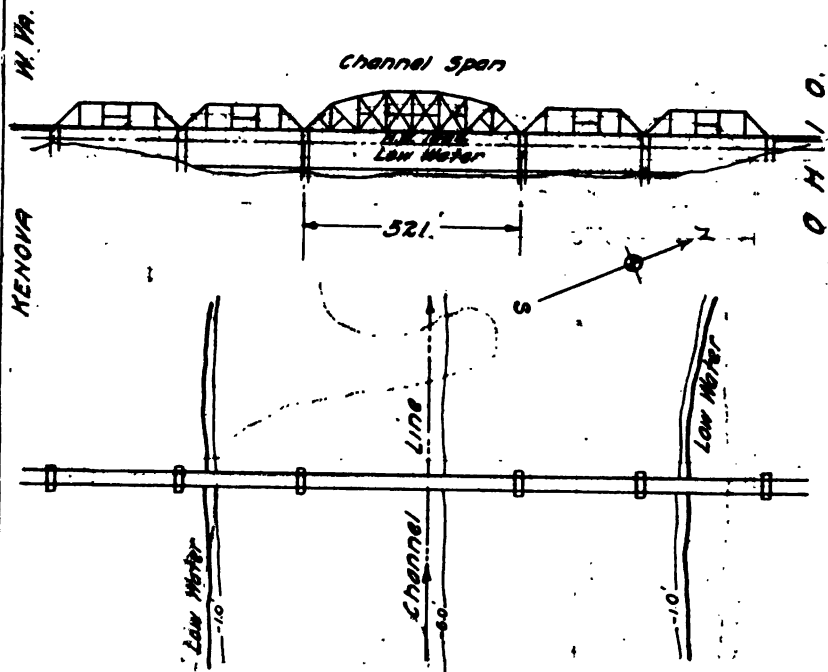
POINT PLEASANT, W. VA.

FAIRMAYEN, OHIO.

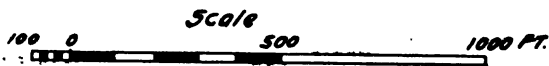


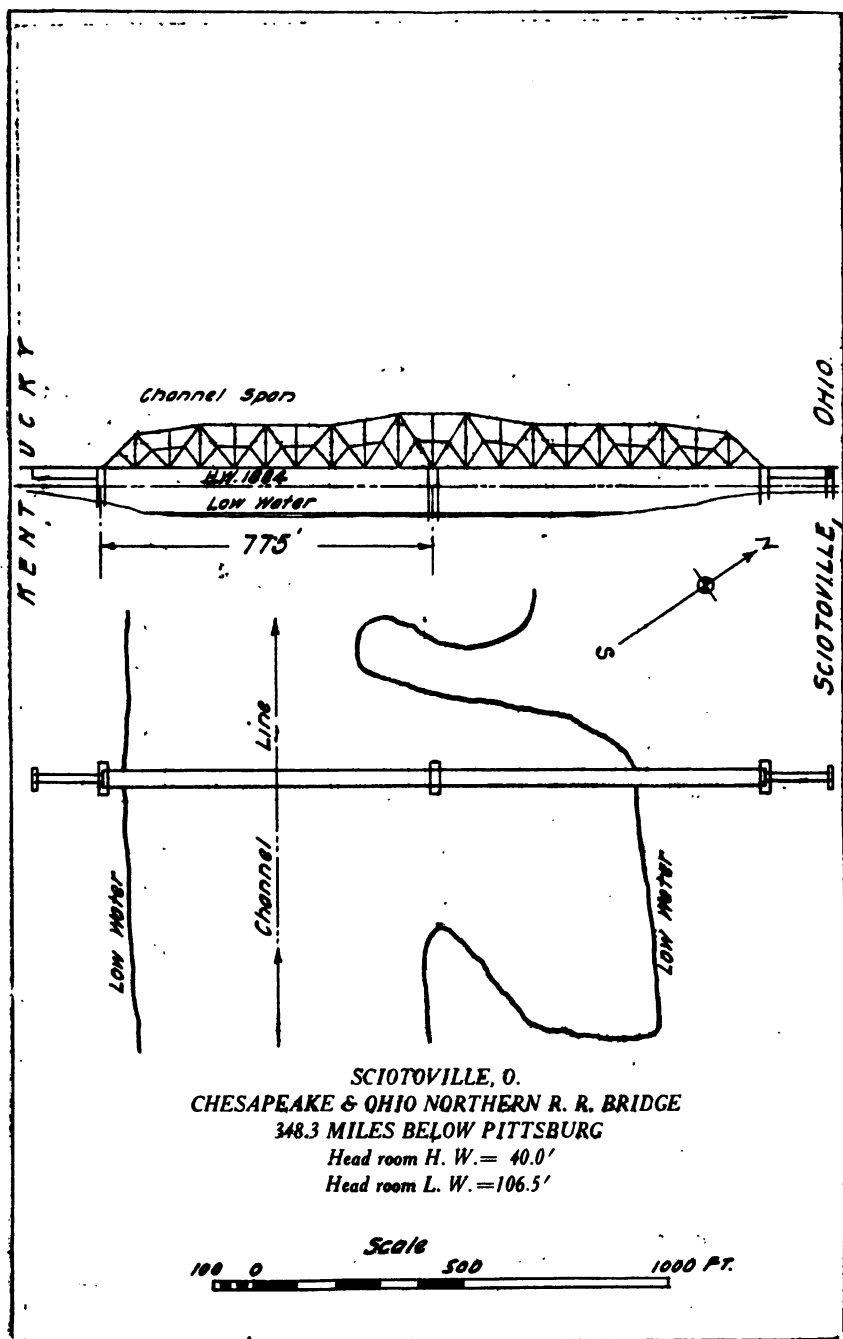
POINT PLEASANT, W. VA.
KANAWHA AND MICHIGAN R.R. BRIDGE
264.3 MILES BELOW PITTSBURG
Head room H.W. 1884 = 31.0'
Head room L.W. = 91.4'

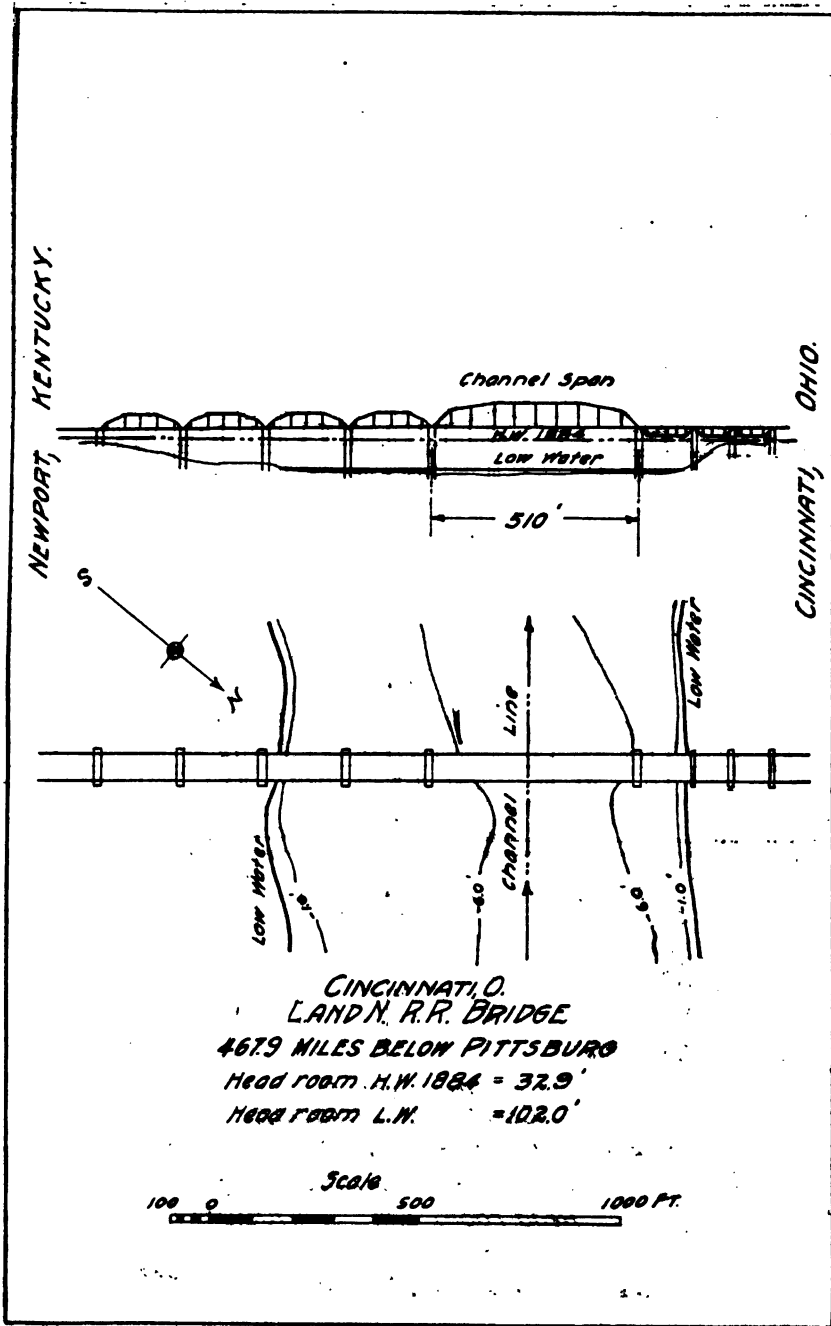


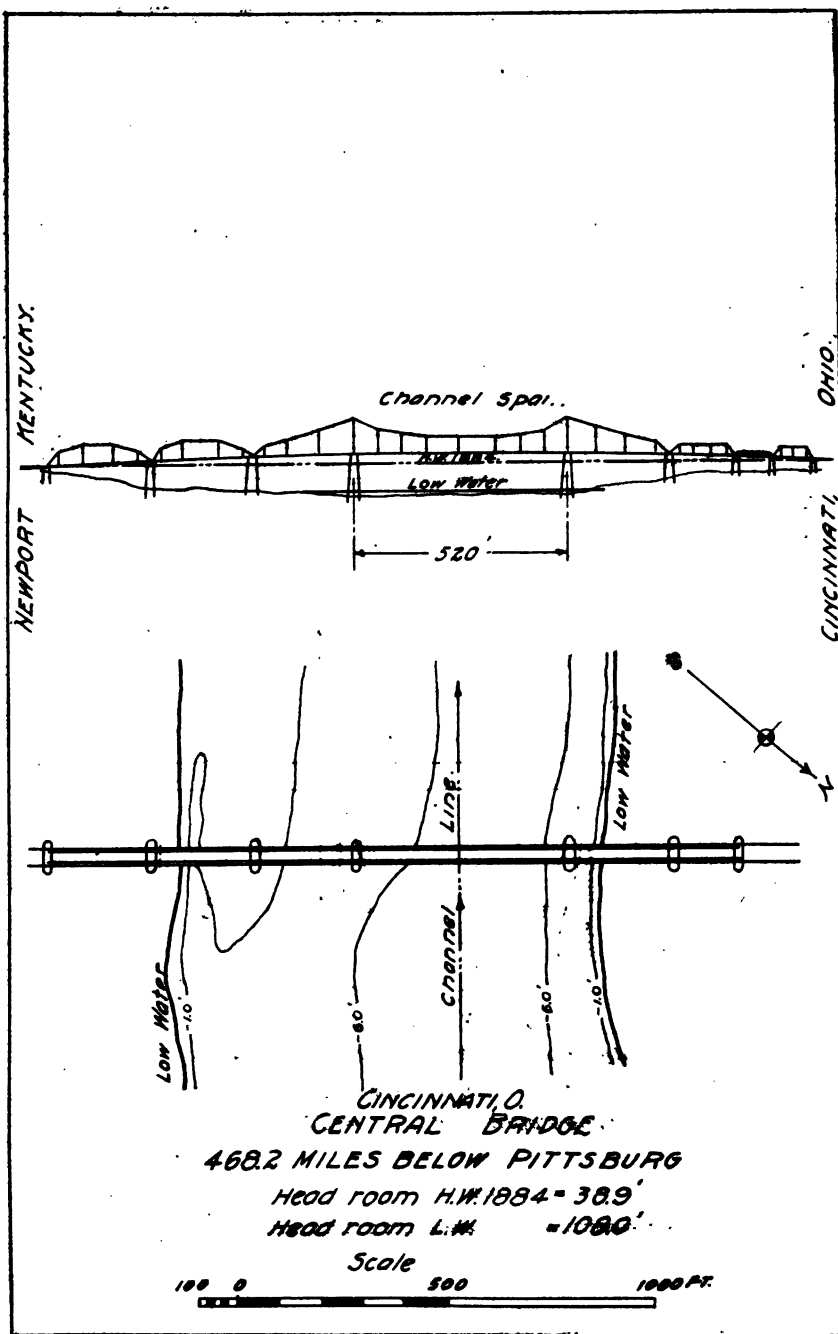


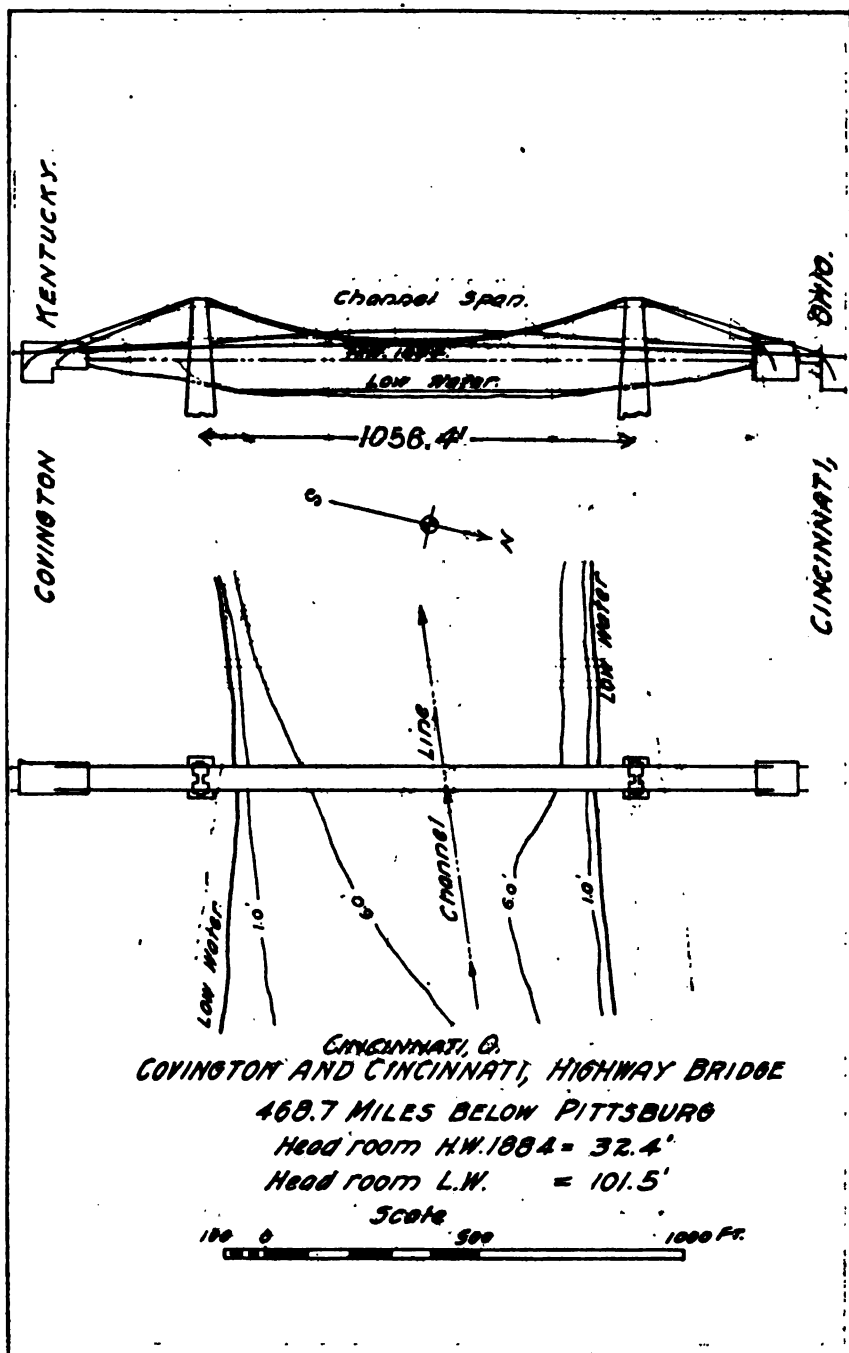
KENOVA, W. VA.
 NORFOLK AND WESTERN R.R. BRIDGE
 315.1 MILES BELOW PITTSBURG
 Head room H.W. 1884 = 35.6'
 Head room L.W. = 100.7'

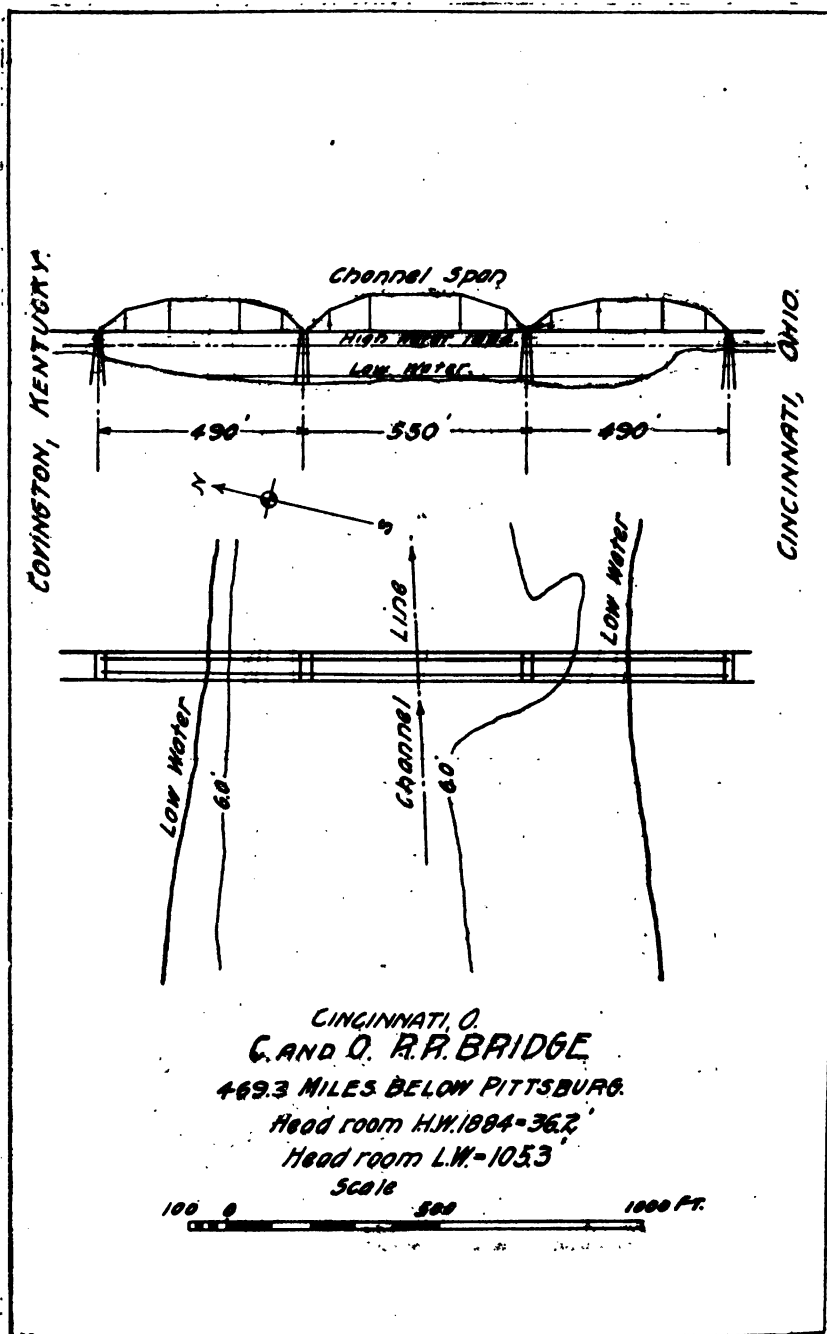






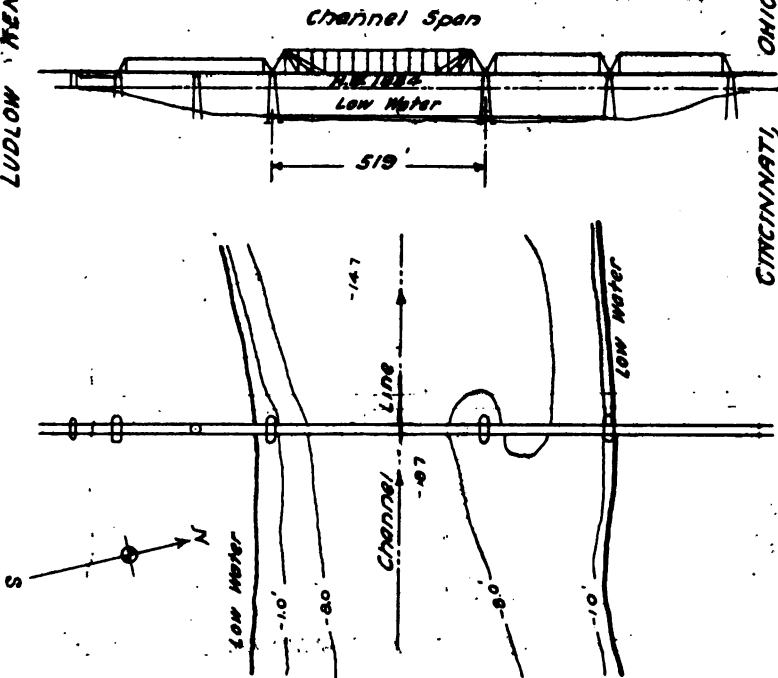






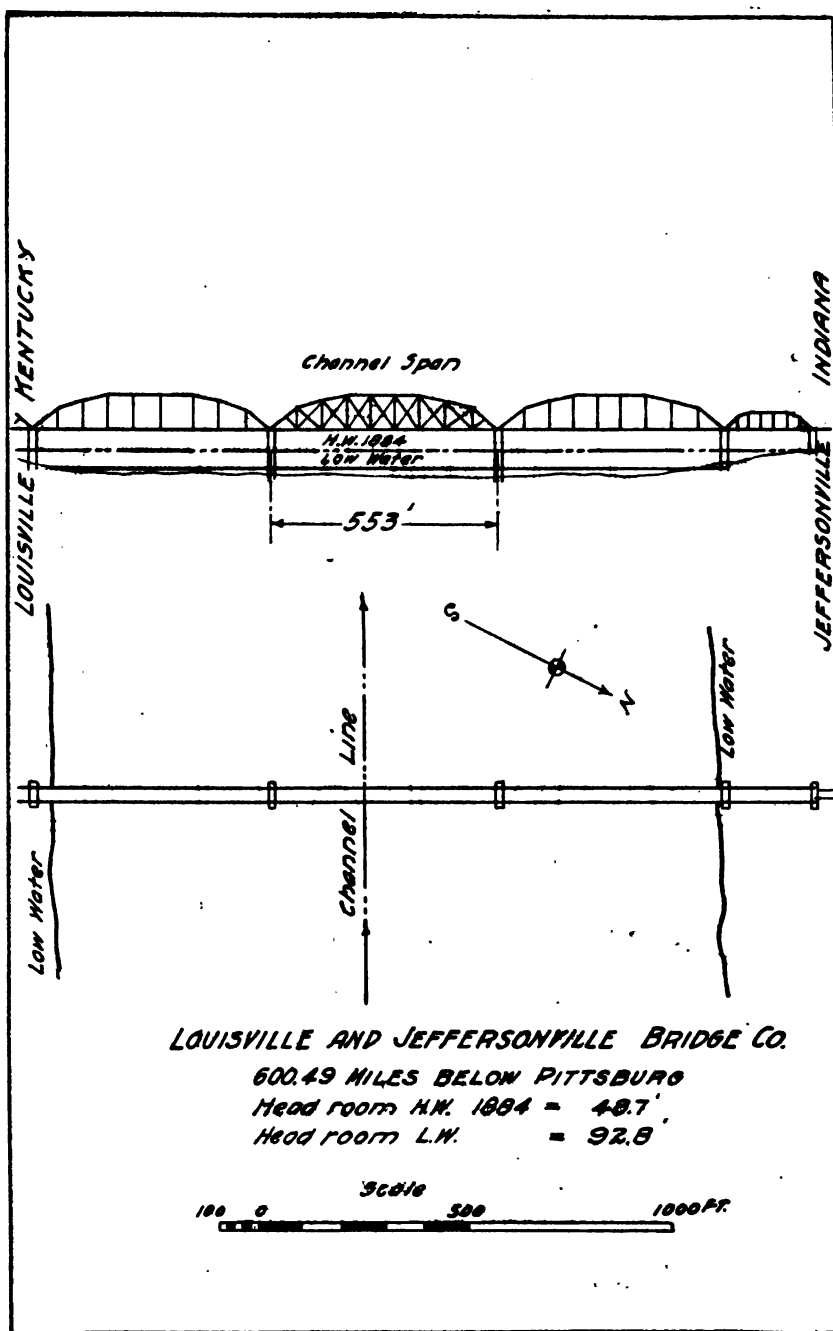
LUDLOW KENTUCKY

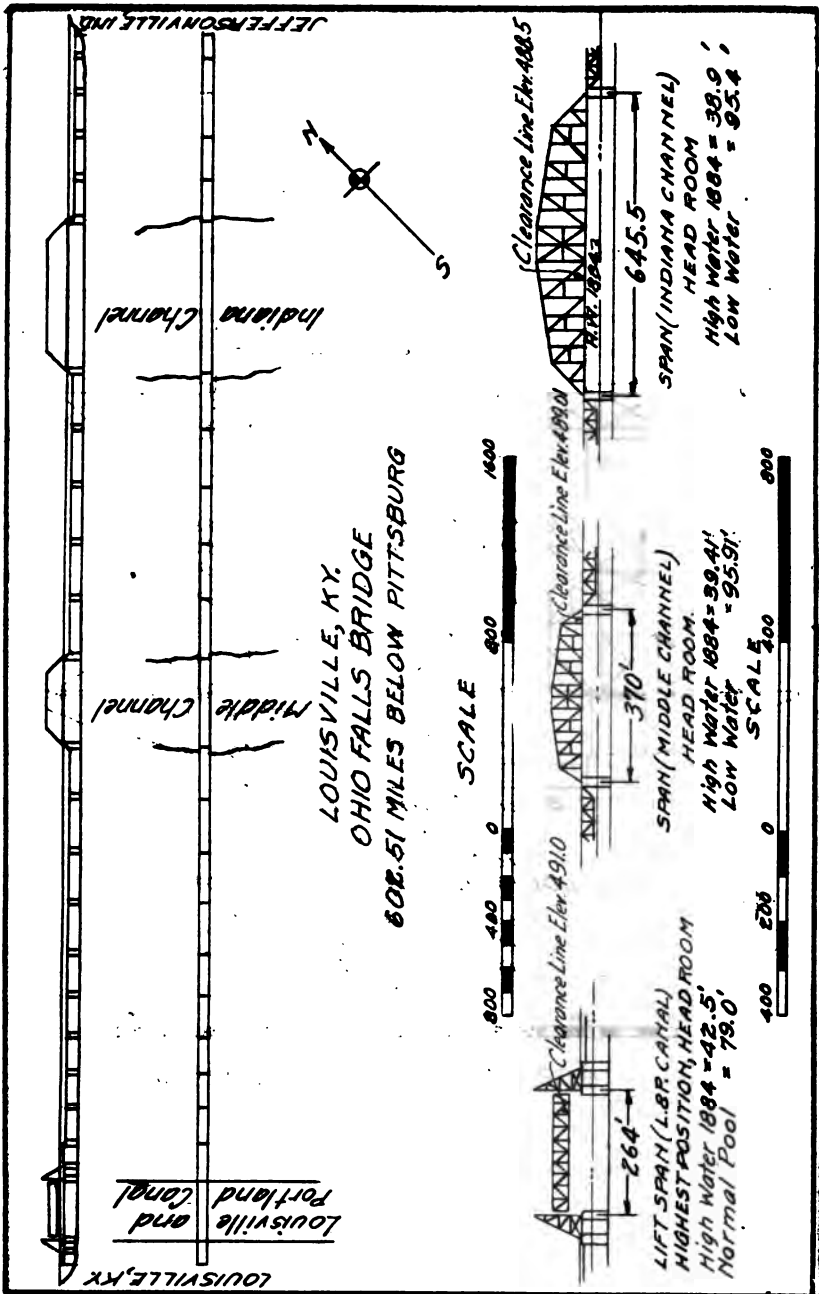
CINCINNATI, OHIO

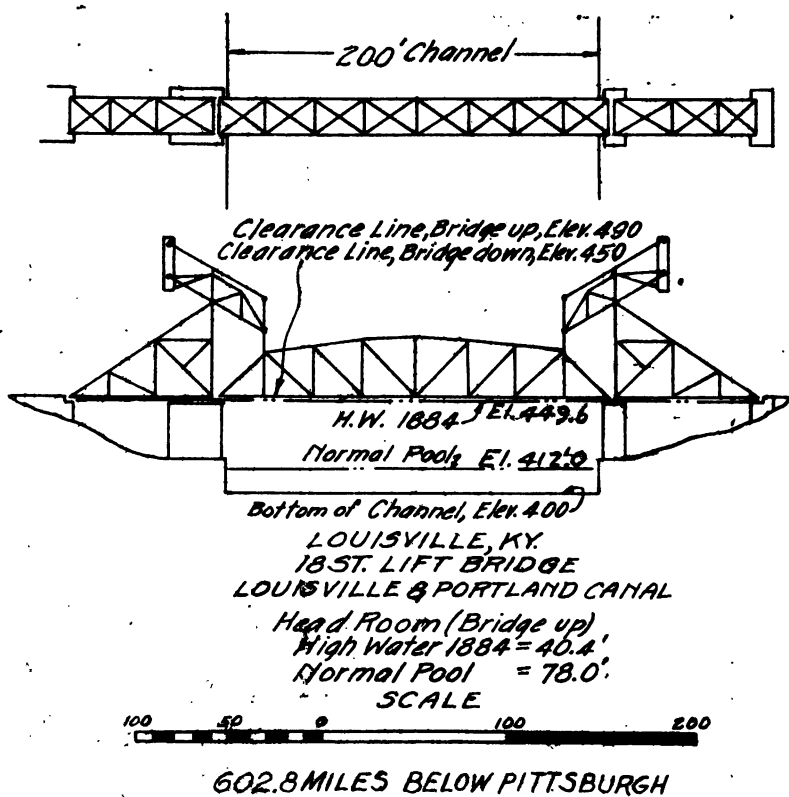


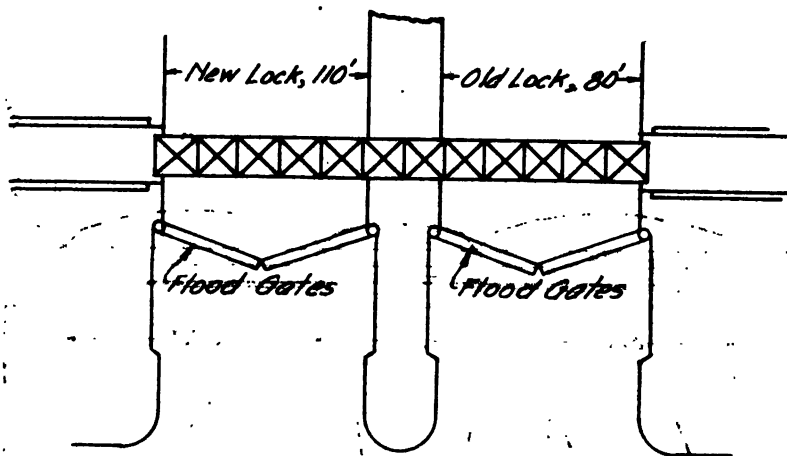
CINCINNATI, O.
CINCINNATI SOUTHERN R.R. BRIDGE
470.7 MILES BELOW PITTSBURG
HEAD ROOM H.W. 1884 = 32.4'
HEAD ROOM L.W. = 101.5'



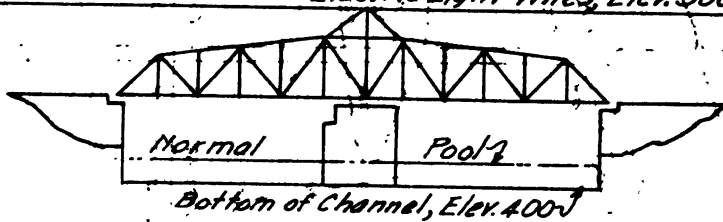






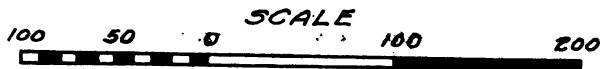


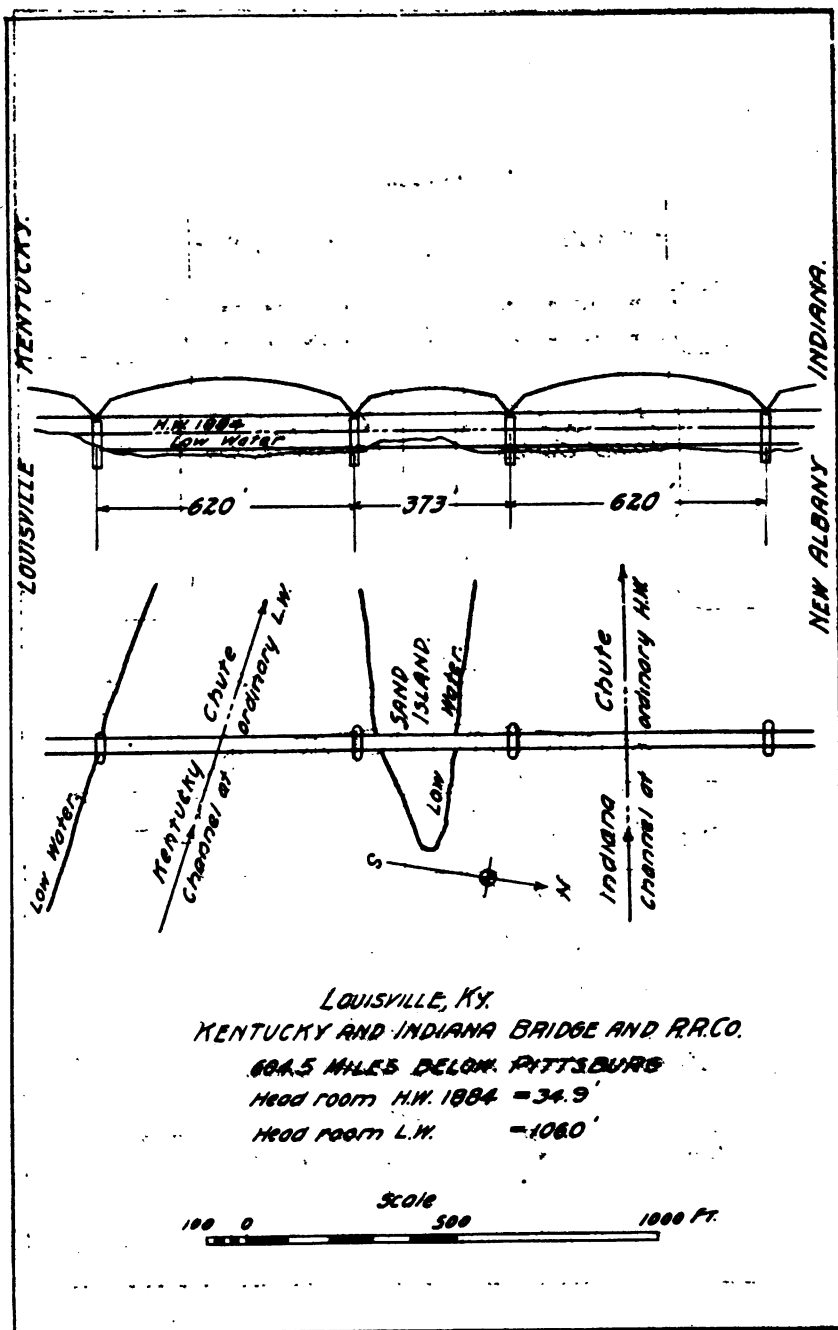
Electric Light Wires, Elev. 500'

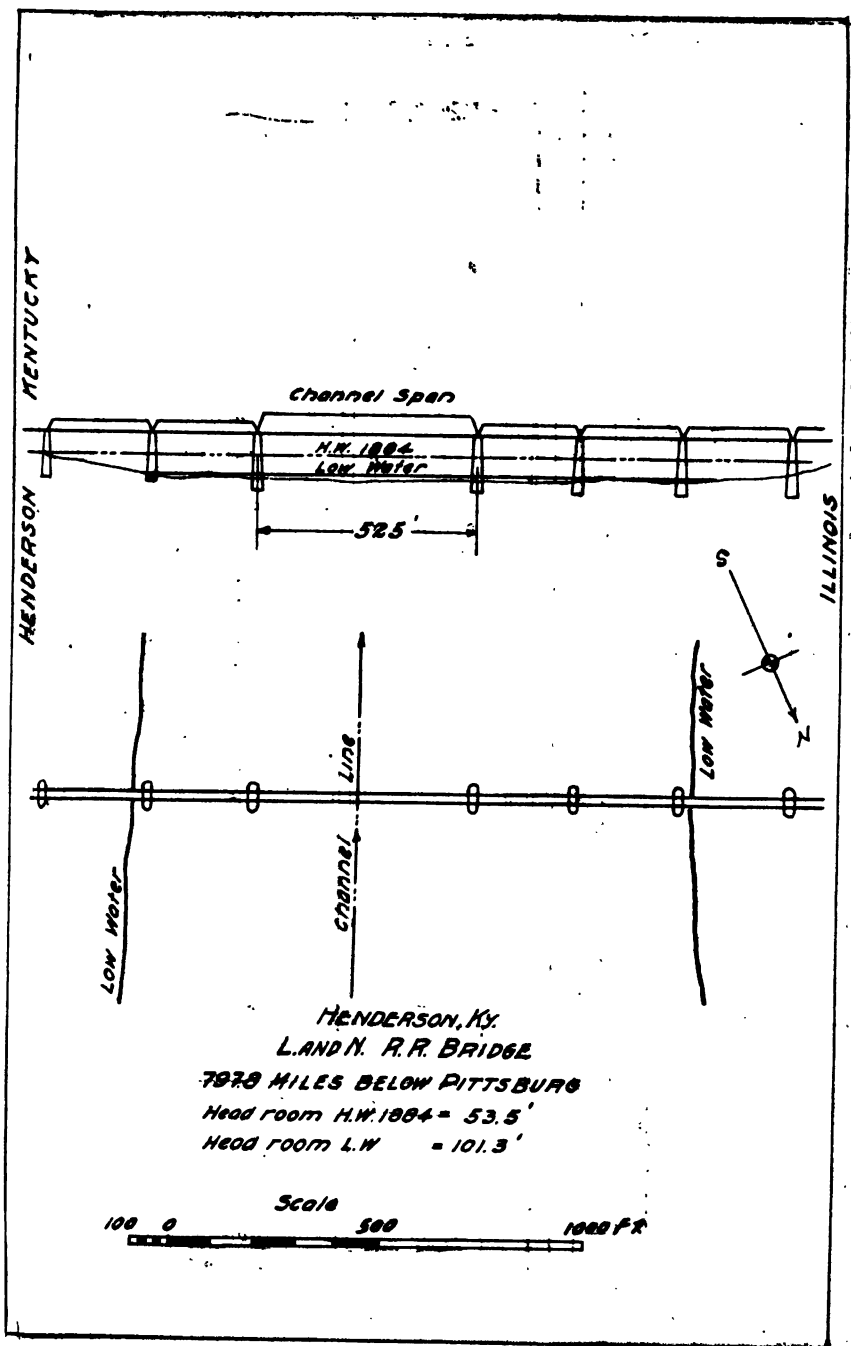


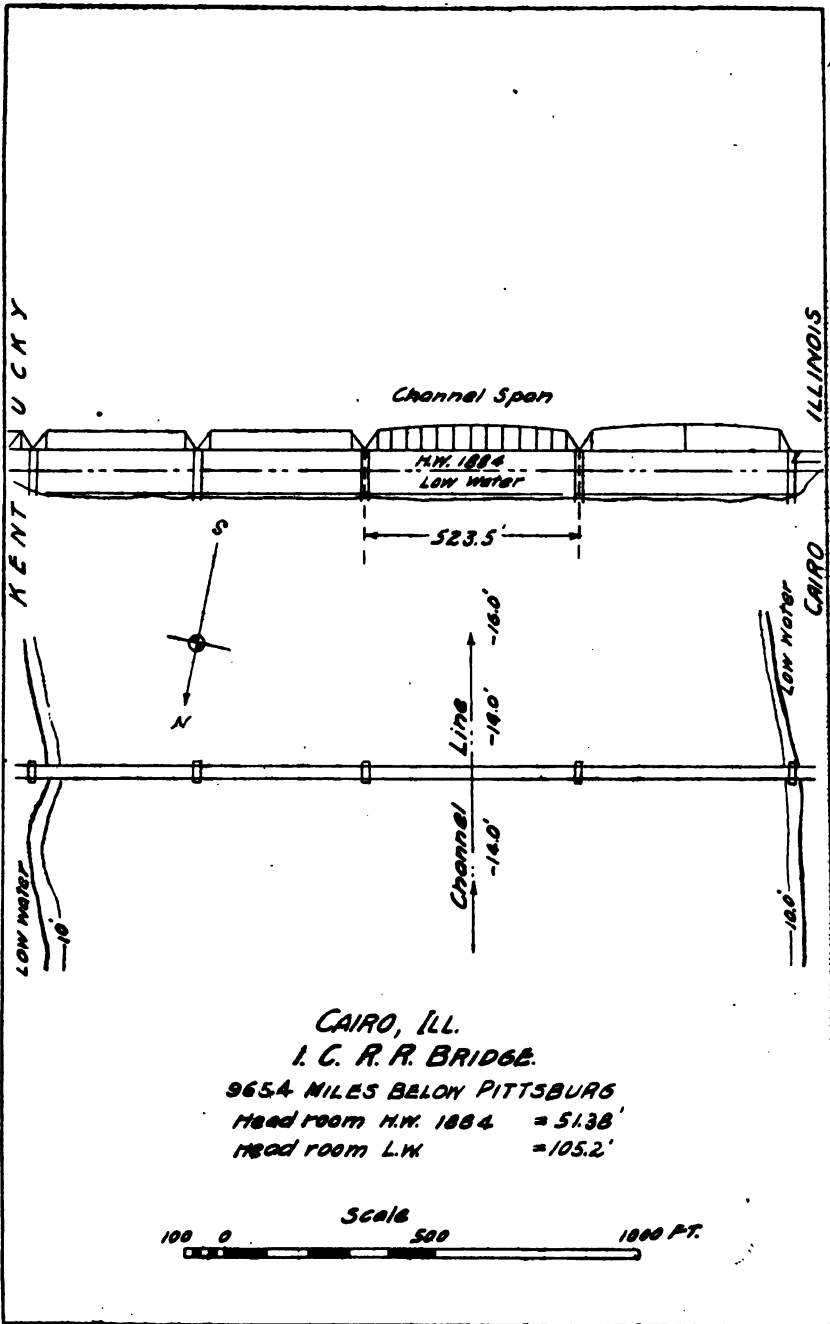
LOUISVILLE, KY.
27ST. SWING BRIDGE
LOUISVILLE & PORTLAND CANAL
60.0 MILES BELOW PITTSBURGH.
Head Room

Electric Light Wires above Normal Pool = 78.0'









List of important river gage stations on the Ohio River and principal tributaries.

Stream.	Name of station.	Location of gage.	No. of miles above mouth.	Elevation of zero above mean sea level.	Date of establishment.	Owner.	Remarks.
Allegheny River.....	Herr Island Dam, Pa.....	River wall of lock at dam, foot of Twenty-second Street., Pitts- burgh.	1.7	Feet. 697.0	Apr. 1, 1898	U. S. E. C..	
Beaver River.....	Beaver Falls, Pa.....	Left bank of river, on stone wall just above dam forming third pool.	3.0	731.2	Apr. 15, 1908	W. B.....	
Big Sandy River.....	Lock No. 3, Louisa, Ky.....	Lower end of river wall of lock.	26.6	516.8	Nov. 1, 1912	U. S. E. C..	When gage reads about 0.5 foot, 1.3-foot navigation is practicable in un- navigated sections below Nashville (mouth to Lock D, Lock C to Lock B). Each additional foot on gage affords increase of 0.8 foot in nav- igable depth.
Cumberland River.....	Clarksville, Tenn.....	North of Kendrick & Peters brick warehouse.	126.0	1328.0	Dec. 1, 1900	W. B.....	
Do.....	Celina, Tenn.....	Near lower steamboat landing.....	383.1	1488.1	Dec. 1, 1903	W. B.....	
Green River.....	Lock No. 2, Rumsey, Ky.....	Upper gage, river wall above up- per gates; lower, below lower gates on river wall.	62.75	U. 355.5 L. 343.4	July 1, 1909	U. S. E. C..	Regraduated June 17, 1914, by U. S. E. C. from 2 to 30.7 feet account of errors. When gage reads 1.0 foot, 1.3-foot navigation is practicable West Point to Lock No. 21. An increase of 0.8 foot is afforded with each additional foot on gage.
Kanawha River.....	Charleston, W. Va.....	Downstream end of right hand channel pier Charleston & Southside bridge.	58.0	554.5	June 4, 1887	W. B.....	Replaced by improved type Oct. 1, 1914.
Kentucky River.....	Frankfort, Ky.....	On side of canal wall at lock 1 mile below city.	65.0	464.8	Oct. 1, 1898	U. S. E. C. W. B.	W. B. supplemental gage on pier of highway bridge.
Leaking River.....	Falmouth, Ky.....	On highway bridge at foot of Ferry Street.	51.25	512.2	June 4, 1887	W. B.....	
Little Kanawha River.....	Creston, W. Va.....	Downstream side near middle of county bridge.	48.0	821.9	Sept. 10, 1900	W. B.....	
Little Miami River.....	Kings Mills, Ohio.....	Retaining wall of building above east end of High Street bridge.	25.0	586.8	July 1, 1912	W. B.....	New gage installed May 1, 1914.
Miami River.....	Hamilton, Ohio.....		35.3	561.5	Nov. 16, 1904	City of Hamilton and W. B.	
	Dayton, Ohio.....	Downstream end of first pier from South end Main Street Bridge.	82.4	724.1	Oct. 1, 1892	W. B.....	New gage installed Nov. 12, 1918.

Monongahela River.....	Lock No. 4, Pa.....	Lower section on lock wall upper section on side powerhouse.	41.2	714.5	Aug. 4, 1915	U. S. E. C..	Original gage established in 1885 was on middle wall at lower end of old large lock with zero 3.2 feet higher.
Munakingum River.....	Marietta, Ohio.....	Chamber side river wall, on steps to, and on looktenders' house.	.25 <i>Below Pass-burn.</i>	567.3	May 1, 1914	U. S. E. C.	
Ohio River ¹	Pittsburgh, Pa.....	Shore side of north pier, Point Bridge.	0.0	697.2	May 25, 1873	W. B.....	New automatic gage was installed Oct. 17, 1907. The old gage was on stone blocks in the wharf, 0.7 mile above Point Bridge.
	Davis Island Dam, Pa.....	Lower end lock wall and on steps to office.	4.7	690.9	Nov. 1, 1880	U. S. E. C..	
	Lock No. 2, $\frac{1}{4}$ mile below Glenfield, Pa.....	Lower gage.	9.0	682.63	Nov. 12, 1906	U. S. E. C..	At low water gage reads 0.6 foot.
	Lock No. 3, Osborne, Pa.....	Lower gage inside river wall below lower gate.	10.9	675.24	Jan. 1, 1908	.....	At low water gage reads 1.5 feet.
	Lock No. 4, Legionsville, Pa.....	do.	18.6	667.78	July 1, 1908	.....	At low water gage reads 0.5 foot.
	Lock No. 5, Freedom, Pa.....	do.	23.9	662.11	July 1, 1906	.....	At low water gage reads 1.2 feet.
	Lock No. 6, $\frac{1}{2}$ miles below Beaver, Pa.....	Lower section on stone projecting crib; upper on powerhouse foundation.	28.8	655.9	July 1, 1883	U. S. E. C..	
	Lock No. 7, opposite Midland, Pa.....	Lower gage inside river wall below lower gate.	36.9	644.7	Sept. 1, 1914	U. S. E. C..	At low water gage reads 5.5 feet.
	Lock No. 8, $\frac{1}{2}$ mile above Congo, W. Va.....	do.	46.1	637.3	June 1, 1911	U. S. E. C..	At low water gage reads 5.3 feet.
	Lock No. 9, New Cumberland, W. Va.....	do.	55.6	630.9	.....	U. S. E. C..	At low water gage reads 4.4 feet.
	Lock No. 10, Steubenville, Ohio.....	do.	65.7	622.5	.....	U. S. E. C..	At low water gage reads 3.9 feet.
	Lock No. 11, $\frac{1}{2}$ miles below Brilliant, Ohio.....	do.	76.3	615.1	Aug. 16, 1911	U. S. E. C..	At low water gage reads 4.0 feet.
	Lock No. 12, Warwood, W. Va.....	do.	87.0	606.8	Jan. 1, 1916	U. S. E. C..	At low water gage reads 7.2 feet.
	Lock No. 13, McMechen, W. Va.....	do.	95.8	601.0	do.....	U. S. E. C..	At low water gage reads 4.0 feet.
	Lock No. 14, in Ohio opposite Woodland, W. Va.....	do.	113.8	591.2	1913	U. S. E. C..	At low water gage reads 4.2 feet.
	Lock No. 15, in Ohio opposite New Martinsville, W. Va.....	do.	128.9	583.4	1913	U. S. E. C..	At low water gage reads 4.9 feet.

¹ The elevations of the Cumberland River gages refer to the datum used on the Cumberland River below Nashville. To reduce these elevations to the Coast and Geodetic Survey datum at the mouth of the river, 2.4 feet must be added.

² Gages Ohio River dams. The locks at all Ohio River dams of recent construction are supplied with four gages located as follows.

(a) Inside face of river wall, below lower gate. Zero at elevation of lower gate tracks or lower sill.

(b) Inside face of river wall, near axis. Zero at elevation of local low water.

(c) Inside face of river wall, above upper gate. Zero at elevation of upper gate tracks or upper sill.

(d) Outside face of river wall at lower end. Zero at elevation of navigable pass sill.

Of these four gages the first named (a) is the one which has been given in this table.

List of important river gage stations on the Ohio River and principal tributaries—Continued.

Stream.	Name of station.	Location of gage.	No. of miles above mouth.	Elevation of zero above mean sea level.	Date of establishment.	Owner.	Remarks.
Ohio River.....	Lock No. 16, Bens Run, W. Va.	Lower gage inside river wall below lower gate.	<i>Before Pittsburgh.</i> 146.4	<i>Fed.</i> 575.4	1915	U. S. E. C.	At low water gage reads 5.2 feet.
	St. Marys, W. Va.....	Pier and approach to boat wharf at mouth of Middle Island Creek.	154.9	577.1	Nov. 1, 1904	W. B.....	
	Marletta, Ohio.....	At foot of, and on levee, on pipe and pole above levee.	171.4	582.0	July 1, 1913	City of Marletta.	
	Lock No. 18, in Ohio opposite Vienna, W. Va.	Lower gage inside river wall below lower gate.	179.3	561.2	1904	U. S. E. C.	At low water gage reads 3.8 feet.
	Parkersburg, W. Va.....	On pier of B. & O. R. R. Bridge.	183.7	561.6	July 1, 1938	W. B.....	
	Lock No. 19, in West Virginia opposite Little Hocking, Ohio.	Lower gage inside river wall below lower gate.	191.4	563.5	1913	U. S. E. C.	At low water gage reads 3.8 feet.
	Lock No. 20, Belleville, W. Va.	do.....	201.7	546.0	1914	U. S. E. C.	At low water gage reads 4.7 feet.
	Lock No. 22, Ravenswood, W. Va.	do.....	220.1	532.6	June 21, 1915	U. S. E. C.	At low water gage reads 5.3 feet.
	Lock No. 24, $\frac{1}{2}$ mile below Racine, Ohio.	do.....	242.0	517.5	1916	U. S. E. C.	At low water gage reads 4.1 feet.
	Point Pleasant, W. Va.....	At brick wharf.	264.6	514.0	Aug. 16, 1899	W. B.....	
	Lock No. 26, Hogsett, W. Va.	Lower gage inside river wall below lower gate.	278.0	501.0	.....	U. S. E. C.	At low water gage reads 4.3 feet.
	Lock No. 28, in Ohio opposite Huntington, W. Va.	do.....	310.9	487.5	Nov. 1, 1913	U. S. E. C.	At low water gage reads 4.5 feet.
	Lock No. 29, Ashland, Ky.	Downstream end of public levee.	319.4	479.5	1911	U. S. E. C.	At low water gage reads 5.3 feet.
	Portsmouth, Ohio.....	Lower gage inside river wall below lower gate.	335.3	470.9	June 4, 1897	W. B.....	
	Lock No. 31, in Kentucky, 3 miles below Portsmouth, Ohio.	do.....	358.4	464.5	1912	U. S. E. C.	At low water gage reads 5.5 feet.
	Lock No. 33, 3.3 miles above Maysville, Ky.....	do.....	404.0	450.0	Feb. —, 1915	U. S. E. C.	At low water gage reads 5.0 feet.
	Lock No. 35, 11 miles below New Richmond, Ohio.	Near foot of Market Street and on C. & O. Ry. viaduct.	407.3	446.7	Oct. 1, 1904	W. B.....	
	Lock No. 35, 11 miles below New Richmond, Ohio.	Lower gage inside river wall below lower gate.	449.7	438.0	1914	U. S. E. C.	At low water gage reads 4.8 feet.
	Cincinnati, Ohio.....	At foot of Broadway.....	468.5	428.8	May 11, 1873	W. B.....	

Lock No. 371 Fernbank, Ohio.	481.3	428.8	1901	U. S. E. C.	At low water gage reads 0.0 feet.
Lock No. 39, $\frac{1}{2}$ mile above Markland, Ind.	529.6	407.0	1914	U. S. E. C.	At low water gage reads 6.7 feet.
Louisville, Ky.	555.5	403.2	Nov. 15, 1899	W. B.	
On levee at public wharf, foot of Mulberry Street.	602.0	403.0	July 23, 1900	U. S. E. C.	
Upper gage Ninth Street and L. & P. Canal.					
Lower gage foot of locks, L. & P. Canal.	634.2	376.1	About 1872.	U. S. E. C.	
Lower gage inside river wall below lower gate.	630.2	363.0		U. S. E. C.	
About 1 mile below railroad station.	707.6	360.9	Dec. 15, 1913	W. B.	
Foot of Main Street.	787.0	322.2	Apr. 22, 1873	U. S. E. C.	
Foot of Third Street.	798.0	327.4	Aug. 1, 1909	W. B.	
Lower gage inside river wall below lower gate.	801.1	318.0		U. S. E. C.	
Foot of Store Street.	822.9	318.9	Oct. 15, 1901	W. B.	
On public levee above park.	818.9	308.9	June 1, 1910	Shawnee-town.	
North side Broadway from First Street and on Fowler & Crumbaugh's Boat Store.	924.1	286.2	May 1, 1873	U. S. E. C.	
On levee at foot of Fourth Street.	966.8	270.9	June 1, 1871	U. S. E. C. W. B.	
South side of middle pier, S. V. Traction Co.'s bridge.	58.0	585.5	June 5, 1907	W. B.	
Railway elevator at right bank.	96.5	315.9	Oct. 1, 1875	N. C. & St. L. Ry.	
Face of draw pier L. & N. Ry. bridge.	256.5	336.8	Nov. 7, 1871	U. S. E. C.	
West side draw pier, Southern Ry. bridge.	304.4	330.0	Oct. 1, 1875	U. S. E. C.	
Bank pier of drawbridge.	414.4	382.0	Mar. 23, 1892	W. B.	
West side first pier from west bank, Southern Ry. bridge.	501.3	374.6	Dec. 1, 1884	W. B.	

For stages above 15 feet, readings are taken from gage on pier of guard gates L. & P. Canal (804 M. +). Prior to July 29, 1900, the city gage at foot of Fourth Street, Louisville, was used for all stages.

Located on southwest side of lock below lower gates.

At low water gage reads 5.4 feet.

At low water gage reads 7.1 feet.

When gage reads -0.5 foot, 4-foot navigation is practicable below Riverton. When gage reads 0.5 foot, 2-foot navigation is practicable, Hales Bar to Browns Island. When gage reads 1.0 foot, 2-foot navigation is practicable, Hales Bar to Browns Island. When gage reads 0.5 foot, 2-foot navigation is practicable, Chattanooga to Junction of French Broad and Holston Rivers.

*The elevations for the Tennessee, Clinch, and Hiwassee Rivers refer to the datum used on the Tennessee River below Browns Ferry. To reduce these elevations to the Coast and Geodetic datum at Paducah, 6.9 feet must be added.

List of important river gage stations on the Ohio River and principal tributaries—Continued.

Stream.	Name of station.	Location of gage.	No. of miles above mouth.	Elevation of zero above mean sea level.	Date of establishment.	Owner.	Remarks.
Tennessee River (concluded).	Knoxville, Tenn.	North side first pier from north bank, county highway bridge.	Above mouth, 647.7	Feet. ± 738.8	Feb. 1, 1883	W. B.	When gage reads 0.5 foot, 2-foot navigation is practicable, Chattanooga to junction of French Broad and Holston Rivers.
Tributaries of Tennessee River:							
Clinch River	Clinton, Tenn.	South side of middle pier Southern Ry. bridge.	59.5	± 773.7	Dec. 1, 1884	W. B.	When gage reads about 5.5 feet, 2-foot navigation is practicable below Clinton.
French Broad River	Dandridge, Tenn.	Left bank at Dandridge ferry.	46.5	.....	Dec. 1, 1904	W. B.	When gage reads 1.0 foot, 2-foot navigation is practicable below Dandridge and 1.5 foot from Dandridge to Leadvale.
Hiwassee River	Charleston, Tenn.	Southwest side pier No. 1 Southern Ry. bridge.	18.9	± 664.1	Dec. 1, 1884	U. S. E. C.	When gage reads 1.0 foot, 3-foot navigation is practicable below Charleston and 2-foot from Charleston to Savannah Ford. An increase or decrease of 1.3 feet on gage corresponds to a rise or fall of 1 foot in navigable depth.
Wabash River	Mount Carmel, Ill.	First round pier from west side, Southern Ry. bridge.	94.5	372.7	June 16, 1884	Southern Ry.	

* The elevations for the Tennessee, Clinch, and Hiwassee Rivers refer to the datum used on the Tennessee River below Browns Ferry. To reduce these elevations to the Coast and Geodetic datum at Paducah, 6.9 feet must be added.

TRIBUTARY STREAMS.

ALLEGHENY RIVER.

Slack water is now carried to a point about 24 miles above the junction of the Allegheny and Monongahela Rivers at Pittsburgh, Pa. The system so far completed includes three locks and dams, the locks affording a minimum of 55 feet in width, 286 feet in length, and 7 feet in navigable depth.

Open-channel work, including the construction of 10 low dams and dikes, affords a navigable channel from 150 feet wide and about 1 foot deep at low water at the New York State line, to 300 feet wide and about 2 feet deep at low water at head of Pool No. 3, a distance of about 189 miles.

Distances, Allegheny River, Pa.

[From river surveys, 1875, 1879, 1886, and 1897.]

Place.	Distance from Pittsburgh.	Place.	Distance from Pittsburgh.
	<i>Miles.</i>		<i>Miles.</i>
Union Bridge, at the point, Pittsburgh.	0.0	Kennerdell.	110.0
Sixth Street Bridge.	0.5	Brandon.	115.9
Seventh Street Bridge.	0.6	East Sandy.	120.9
Ninth Street Bridge.	0.7	Blue Rock Bridge.	125.1
Fort Wayne R. R. bridge.	1.0	Franklin Bridge.	126.4
Sixteenth Street Bridge.	1.3	Renov.	130.7
Herr Island Lock (Twenty-first Street).	1.7	Oil City Suspension Bridge.	134.0
Thirtieth Street Bridge.	2.3	Oil City Relief Bridge.	134.1
Pittsburgh Junction R. R. bridge.	2.6	Oil City and Petroleum Bridge.	134.2
Forty-third Street Bridge (Millvale).	3.4	Allegheny Valley Ry. bridge.	134.7
Butler Street Bridge (Sharpsburg and Etna).	5.3	Horse Creek.	135.6
Sixmile Island Lock (No. 2) and wing dam.	7.0	Walnut Bend.	141.1
Aspinwall.	7.3	Oleopolis.	142.7
Shades Run (Pittsburgh City Line).	8.3	Pithole Creek.	143.5
Verona.	11.2	Henrys Run.	145.3
Pittsburgh, Buffalo & Lake Erie R. R. bridge.	14.0	Hemlock Creek.	146.9
Lock No. 3 (Springdale).	16.7	Baums Station.	149.1
New Kensington.	19.3	Hunters Run.	150.5
Tarentum (Bull Creek).	21.6	Little Tionesta Creek.	162.3
Natrona.	24.2	Tionesta Bridge.	154.4
Freeport Bridge.	28.7	Dales Island, head.	157.2
West Pennsylvania R. R. bridge.	30.0	West Hickory Creek.	159.6
Kiskiminetz River.	30.2	East Hickory Creek.	161.4
Clinton.	35.7	Hemlock Island, head.	162.8
Kelly.	36.3	Porterfield Island, head.	166.7
Nicholson's Dam.	37.8	Tidioute.	169.2
Logansport.	38.2	Courts Island, head.	170.9
Roston.	40.7	Magees Run.	173.2
Ford City.	42.4	Conklin Run.	176.2
Manorville.	43.7	Thompsons Run.	177.7
Kittanning Bridge.	45.6	Clarks Island, head.	179.4
Lower Cowanshannock Dike.	48.7	Dumms Island, foot.	180.1
Upper Cowanshannock Dike.	49.1	Brokenstraw Island, foot.	182.3
Mosgrove.	51.2	Brokenstraw Creek.	184.0
Templeton.	55.5	Jacksons Run.	186.9
Mahoning.	56.2	Meads Island, head.	188.4
Rimerton.	61.0	Warren Suspension Bridge.	191.5
Riverview.	62.1	Conewango Creek.	191.9
Red Bank Dike.	64.5	Morrisons Creek.	193.9
Red Bank Creek.	64.9	Shipmans Island, head.	196.0
Red Bank Junction.	65.0	Hooks Island Mill.	196.9
Phillipston.	67.6	Long or Goose Island, foot.	199.1
East Brady.	70.7	Bents Run.	200.9
Catfish Run.	73.5	Kinzua Creek.	202.2
Lower Hillsville.	76.4	Licks Run.	202.7
Monterey.	80.5	Kinzua Island, head.	204.2
Parker Bridge.	85.0	Sugar Creek.	206.5
Clarion River.	86.1	Hodges Run.	206.0
Foxburg Bridge.	87.8	Lower Cornplanter Island, No. 2, foot.	207.2
Emlenton Bridge.	91.6	Lower Cornplanter Island, No. 1, head.	208.4
Dotter.	94.7	Cornplanters Creek, monument.	208.9
Rockland.	101.4	Tracy Run.	210.4
St. George.	104.3	Browns Island, head.	211.2
		Corydon.	212.4
		New York and Pennsylvania State line.	213.7

MONONGAHELA RIVER.

Slackwater is now carried to a point 4 miles above Fairmont, W. Va., a total distance of 131 miles above the junction of the Allegheny and Monongahela Rivers at Pittsburgh, Pa. The system includes a total lockage of 153.59 feet with 15 locks and dams, Locks Nos. 1 to 6 affording a minimum of 56 feet in width and 360 feet in length, Locks Nos. 7 to 9, 50 feet in width and 159 feet in length, and locks Nos. 10 to 15, 56 feet in width and 182 feet in length. The minimum navigable depths afforded are 8 feet, mouth to Lock No. 7, 5 feet between Locks Nos. 7 and 10, and 7 feet to head of navigation.

Distances, Monongahela River.

No. of light or mark.	Name.	Miles from Pittsburgh.	Side of channel.	Color of aid.
	Junction of Tygart and West Forks.....	128.1		
	Baltimore & Ohio Ry. bridge (channel span, 153 feet, height, 27.7 feet).....	127.8		
	Fairmont, W. Va.....	126.7	Left.....	
	Fairmont Bridge (channel span, 271.0 feet; height, 49 feet).....	126.6		
	Baltimore & Ohio Ry., Mount Bridge (channel span, 56 feet; height, 50 feet).....	124.2		
	Lock No. 15.....	124.2		
	Monongahela Ry. bridge (channel span, 285 feet; height, 57.6 feet).....	120.4		
	Lock No. 14.....	115.0		
	Lock No. 13.....	111.6		
	Lock No. 12.....	109.1		
	Lock No. 11.....	104.1		
	Lock No. 10.....	101.5		
	Morgantown Bridge (channel span, 270.0 feet; height, 51.0 feet).....	100.9		
	Morgantown, W. Va.....	100.8	Right.....	
649	Morgantown Daymark.....	100.5	do.....	White.
648	Dent Run Light.....	99.1	Left.....	Do.
646	Collins Ferry Light.....	95.5	do.....	Do.
645	Coburn Landing Light.....	93.7	Right.....	
	Lock No. 9.....	92.5		
644	Stone Landing Light.....	91.5	Right.....	Do.
	Point Marion, Pa.....	89.6	do.....	
642	Crow Ferry Light.....	88.1	Left.....	Do.
	Lock No. 8.....	87.1		
	Monongahela Ry. bridge (channel span, 454.0 feet; height, 52.7 feet).....	85.8		
642	Yellow Rocks Light.....	85.5	Left.....	Do.
	Greensboro, Pa.....	84.5	do.....	
641	Greensboro Light.....	84.0	Right.....	Do.
	Lock No. 7.....	82.3		
640	Big Whiteley Light.....	79.8	Left.....	Do.
639	McLain Ferry Light.....	78.7	Right.....	Do.
638	McCann Ferry Light.....	77.9	Left.....	Do.
637	Brown Run Light.....	77.0	Right.....	Do.
636	Burwell Light.....	74.8	Left.....	Do.
635	Mount Joy Light.....	73.7	Right.....	Do.
634	Arnsberg Light.....	70.6	do.....	Do.
	Lock No. 6.....	68.3		
	Rice Landing, Pa.....	68.1	Left.....	
633a	Rush Run Light.....	67.5	do.....	Do.
633	Ten-Mile Creek Light.....	66.0	do.....	Do.
632	East Millsboro Light.....	65.3	Right.....	Do.
	Millsboro, Pa.....	65.3		
631	Riverville Light.....	63.7	do.....	Do.
630	Fox Mine Light.....	62.0	do.....	Do.
629	Kelly Run Light.....	60.5	Right.....	Do.
	Lock No. 5.....	56.5		
	Brownsville Bridge (channel span, 506.0 feet; height, 54.7 feet).....	56.2		
	Brownsville, Pa.....	56.0	Right.....	
	Pennsylvania Ry. West Brownsville Junction Bridge (channel span, 386.0 feet; height, 52.0 feet).....	56.1		
628a	Brownsville Light.....	56.0	Left.....	Do.
628	Albany Light.....	54.9	Right.....	Do.
626	Bobtown Light.....	52.5	do.....	
	California Light.....	51.7	Left.....	
	Coal Center Light.....	51.2	do.....	
	Newell Light.....	51.0	Right.....	
625	Greenfield Bend Light.....	50.8	Left.....	Do.
624	Anchor Light.....	48.9	Right.....	Do.
623a	Washington Mines Light.....	47.9	do.....	Do.
623	Little Red Stone Light.....	46.8	Left.....	Do.

Distances, Monongahela River—Continued.

No. of light or mark.	Name.	Miles from Pittsburgh.	Side of channel.	Color of aid.
622	Belle Vernon Light.....	43.8	Right	
	Charleroi, Pa.....	42.0	Left	
	Mercantile Bridge Co., Charleroi Bridge (channel span, 362 feet; height, 54.0 feet).....	41.0		
	Lock No. 4.....	40.9		
621	Monessen Light.....	40.0	Left	White.
	Monessen, Pa.....	39.2	Right	
620	Graveyard Light.....	38.4	do	Do.
619	Crummy Landing Light.....	37.1	do	Do.
	Donora Light.....	36.7	Left	
	Webster Light.....	36.7	Right	
	Webster-Donora Bridge (channel span, 502.0 feet; height, 57.9 feet).....	36.3		
618	Bakertown Light.....	35.6	Right	Do.
617	Old Snodgrass Light.....	35.1	Left	Do.
	Monongahela Bridge (channel span, 440 feet; height, 54 feet).....	32.0		
	Monongahela, Pa.....	31.9	Right	
616	Monongah Light.....	31.5	do	Do.
615	New Eagle Light.....	30.5	do	Do.
614	Mingo Light.....	29.9	Left	Do.
613	Elkhorn Light.....	29.4	Right	Do.
612a	Bunola Light No. 3.....	27.7	do	
612	Bunola Light No. 1.....	25.7	do	Do.
611a	Lock No. 3 Light.....	24.8	do	
	Lock No. 3.....	23.8		
	Elizabeth Bridge (channel span, 250 feet; height, 52.4 feet).....	22.9		
	Elizabeth, Pa.....	22.9	Right	
611	Brightendaw Light No. 2.....	22.2	Left	Do.
610	Brightendaw Light No. 1.....	21.6	Right	Do.
	St. Clair Terminal Ry. bridge (channel span, 482 feet; height, 51 feet).....	21.1		
609	Bellbridge Light.....	20.3	Right	Do.
608	Francis Run Light.....	19.8	do	Do.
607	Pine Run Light.....	18.4	Left	Do.
	Dravosburg Bridge (channel span, 258 feet; height, 51.8 feet).....	16.4		
606	Youghiogheny Light.....	15.6	Left	Do.
	Youghiogheny River.....	15.6	do	
	McKeesport, Pa.....	15.4	Right	
	Pennsylvania Ry. (Riverton) bridge (channel span, 324 feet; height, 52.6 feet).....	14.4		
	West Pennsylvania Ry. (Riverton-Duquesne) bridge (channel span, 306 feet; height, 52.9 feet).....	14.3		
605	Demler Light.....	13.4	Right	Do.
	Duquesne.....	13.2	Left	
	Pennsylvania Ry. (Port Perry) bridge (channel span, 409 feet; height, 49.1 feet).....	11.7		
	Union Ry. (Port Perry) bridge (channel span, 378 feet; height, 58.7 feet).....	11.6		
	Lock No. 2.....	11.2		
	Braddock, Pa.....	10.6	Right	
	West Braddock (Rankin) Bridge (channel span, 502 feet; height, 68.4 feet).....	9.6		
	Union Ry. (Rankin) bridge (channel span, 483 feet; height, 53.4 feet).....	9.3	Right	
	Rankin, Pa.....	9.3		
	Pittsburgh & Lake Erie Ry. bridge (channel span, 250 feet; height, 54.2 feet).....	8.6		
604	City Farm Light.....	8.2	Right	Do.
	Homestead and Pittsburgh (Brown) Bridge (channel span, 350 feet; height, 54 feet).....	7.6		
	Homestead, Pa.....	7.2	Left	
	Baltimore & Ohio Ry. (Glenwood) bridge (channel span, 453 feet; height, 53.0 feet).....	6.2		
	Pittsburgh Rys. Co. (Glenwood) bridge (channel span, 508 feet; height, 60.3 feet).....	6.0		
	Monongahela Connecting Ry. bridge (channel span, 311 feet; height, 51 feet).....	3.1		
	Twenty-second Street Bridge (channel span, 506 feet; height, 54.0 feet).....	2.4		
	Lock No. 1.....	2.0		
	Tenth Street Bridge (channel span, 441 feet; height, 56.7 feet).....	1.5		
	P., C. C. & St. L. Ry. bridge (channel span, 351 feet; height, 50.9 feet).....	1.0		
	Smithfield Street Bridge (channel span, 344 feet; height, 49.5 feet).....	0.8		
	Pittsburgh Landing.....	0.6		
	Pittsburgh & W. Va. Ry. bridge (channel span, 786 feet; height, 73.8 feet).....	0.5		
	Point Bridge (channel span, 769 feet; height, 68.8 feet).....	0.0		
	Mouth of river.....	0.0		

BEAVER RIVER.

The Ohio River was at one time connected with Lake Erie, at Erie, Pa., by means of slack water and canal. At present the locks are practically obliterated.

MUSKINGUM RIVER.

The Muskingum was at one time connected with Lake Erie via the Ohio Canal. At the present time slack water extends only to Dresden, 91 miles above the mouth of the Muskingum, and it is not possible to pass through to the lake. The Muskingum slack-water system includes 12 locks^a and 11 dams, affording a minimum of 35.5 feet in width, 159 feet in length, and 6 feet in navigable depth.

Table of distances and locations of locks and important points, Muskingum River.

Locality.	Lock No.	Distance from mouth.	Locality.	Lock No.	Distance from mouth.
		<i>Miles.</i>			<i>Miles.</i>
Marietta.....	1	0.25	Gaysport.....		61.10
Devols.....	2	5.75	Salt Creek.....		66.00
Bear Creek.....		12.35	Philo.....	9	66.84
Lowell.....	3	13.87	Duncan Falls.....		66.84
Coal Run.....		19.00	Brush Creek.....		71.00
Waterford.....		24.50	Moxahela Creek.....		73.00
Beverly.....	4	24.71	Zanesville (2 locks in tandem).....	10	75.82
Wolf Creek.....		24.71	Licking River.....		78.00
Olive Green Creek.....		27.10	Ellis.....	11	83.92
Meigs Creek.....		29.25	Symmes Creek.....		86.32
Luke Chute.....	5	32.07	Dresden.....		91.00
Roxbury.....		36.00	Wakatomika Creek.....		92.00
Stockport.....	6	39.11	Wills Creek.....		99.25
McConnelsville.....	7	48.22	Coshocton.....		107.00
Malta.....		48.50	Walhonding River.....		107.00
Eagleport.....	8	56.00	Tuscarawas River.....		107.00

LITTLE KANAWHA RIVER.

Slack water is carried for a distance of about 48 miles above the mouth of the river by means of five locks and dams; the locks affording a minimum of 22.7 feet in width, 125 feet in length, and 4 feet in navigable depth. Open navigation for small boats, during moderate stages, is possible for a distance of 65 miles from the mouth.

^a Lock No. 10 is a double lock, flight of 2, tandem.

Table of distances and locations of locks and dams.

Locality.	Distance from mouth.	Locality.	Distance from mouth.
	<i>Miles.</i>		<i>Miles.</i>
Parkersburg.....	0.0	Rices Ripple.....	85.0
Shacktown.....	3.5	Acre Island.....	86.0
Lock No. 1.....	3.5	Laurel Shoals, mouth Laurel Creek.....	87.0
Leachtown.....	14.0	Muscle Shoals.....	89.0
Lock No. 2.....	14.5	Buck Shoals.....	90.0
Hughes River.....	17.0	Tanners Fork.....	92.0
Wells Ripple.....	22.0	Shanty Run.....	
Lock No. 3.....	25.5	Fishpot Shoals.....	
Elizabeth.....	26.25	Mill Seat Ripple.....	93.0
Palestine.....	29.0	Cedar Creek.....	93.0
Lock No. 4.....	31.0	Third Run Shoals.....	98.5
Burning Springs.....	38.5	Stinking Creek.....	99.25
Lock No. 5.....	40.5	Leading Creek.....	101.0
Buffington Shoals.....	44.0	Red Oar Bar.....	101.5
Cow Ripple.....	45.0	Glenville.....	103.0
West Fork Ripple.....	47.5	Stewarts Creek.....	105.5
Creston.....	48.0	Hays Bar.....	106.0
Flat or Two-run Ripple.....	50.5	Mud Lick Run.....	107.0
Beaver Rocks.....	52.75	Sand Fork Ripple.....	110.5
Nailor Bend.....	53.75	Second ripple above Sand Fork.....	
Mouth of Lower Leading Creek.....	56.0	Stouts Ripple.....	
Develise Ripple.....	61.0	Dusk Camp Run.....	112.75
Downs Ripple.....	62.5	Stouts Mill.....	113.75
Mouth of Anna Maria Creek.....	63.5	Holts Ripple.....	
Stocking Run.....	66.5	First ripple above Copen Run.....	
Big Root Shoals.....	68.5	Second ripple above Copen Run.....	
Beals Ripple.....	73.5	Hyers Run.....	118.5
Heardmans Ripple.....	75.0	Buffalo Shoals.....	119.5
Mouth of Pine Creek.....	76.0	Oil Creek.....	121.5
Mouth of Leaf-Bank Run.....	77.25	Lumberport.....	122.0
Grantsville.....	78.0	Cutlips Mill.....	124.0
Bull River Shoals.....	79.0	Bennets Run.....	127.0
Hoffmans Ripple.....	80.0	Bulltown.....	137.5
Steer Creek Ripple.....	83.0		

BIG HOCKING RIVER.

The Big Hocking River was at one time connected via Athens with the Ohio system of canals. At present navigation is possible for a few miles only above the Ohio, for very small boats, during moderate stages.

KANAWHA RIVER.

Slackwater navigation is made available to a point about two miles below Loup Creek Shoal, and about 88 miles above the mouth of the river by 10 locks and dams. The locks afford a minimum of 50 feet in width and 271 feet in length. The maximum draft which can be carried through the channel and locks at low water, when the pools are full, is 6 feet.

Distances, Kanawha River.

No. of light or mark.	Locality.	Miles from Point Pleasant.	Side of channel.	Color of aid.
	Kanawha Falls.....	95.25		
	Falls Branch.....	94.50	Left.....	
	Long Shoal.....	93.75		
	Deepwater, W. Va.....	91.40	Left.....	
	Loup Creek.....	90.60	do.....	
	Guthrie, W. Va.....	89.75	do.....	
	Bloomers Branch.....	88.15	Right.....	
	Armstrong Creek.....	88.0	Left.....	
	Smithers Creek.....	86.3	Right.....	
	Cannelton, W. Va.....	85.25	do.....	
	Montgomery, W. Va.....	86.2	Left.....	
	Lock and Dam No. 2.....	84.5		
	Morris Creek.....	84.1	Left.....	
	Handley, W. Va.....	83.5	do.....	
	Sanders, W. Va.....	81.75	Right.....	
	Hughes Creek.....	81.0	do.....	
	Dezo, W. Va.....	80.5	Left.....	
	Paint Creek.....	80.0	do.....	
	Paint Creek Shoal.....	79.5		
	Lock and Dam No. 3.....	79.50		
	Kelleys Creek.....	77.5	Right.....	
	East Bank, W. Va.....	76.75	Left.....	
	Coalburg, W. Va.....	72.25	do.....	
	Cabin Creek.....	73.8	do.....	
443	Cabin Creek Shoals Light.....	73.5	Right.....	White; red light.
	Lock and Dam No. 4.....	73.25		
442	Witcher Creek Shoals Light.....	70.3	Right.....	White.
441	Machine Ripple Daymark.....	69.5	do.....	Do.
440	Bradford Landing Light.....	68.8	Left.....	Do.
	Lock and Dam No. 5.....	67.25		
	Malden, W. Va.....	63.8		
439	Donnelly Bar Light.....	62.3	Left.....	Do.
	Kanawha City, W. Va.....	62.0		
438a	Donnelly Bar Daymark.....	62.0	Right.....	Do.
438	Black Hawk Light.....	61.0	do.....	Do.
	Kanawha City Bridge (channel span, 416 feet; height, 75 feet.)	60.7		
	Charleston and Southside Bridge (channel span, 400 feet; height, 75 feet.)	58.0		
	Charleston, W. Va.....	58.0		
437	Elk Shoals Light.....	56.0	Left.....	White; red light.
	Kanawha and Terminal Bridge (channel span, 405 feet; height, 78 feet.)	55.8		
436	Two-Mile Shoals Light No. 3.....	55.5	Right.....	White.
435	Two-Mile Shoals Light No. 1.....	55.0	do.....	White, with red front.
434	Island Shoals Daymark, No. 2.....	54.3	Left.....	White.
433	Island Shoals Light, No. 1.....	54.3	Right.....	White; red light.
	Lock and Dam No. 6.....	54.0		
432	Davis Creek Light.....	52.8	Left.....	White.
431	Tyler Shallows Daymark.....	51.8	do.....	Do.
430	Newcomer Shoals Light.....	50.8	do.....	Do.
429	Negro Crossing Daymark.....	50.3	do.....	Do.
428	Friend Landing Light.....	50.0	Right.....	Do.
427	Peal Maple Light.....	48.0	do.....	Do.
	St. Albans, W. Va.....	45.8		
426	Coal River Light.....	45.7	Left.....	Do.
	Lock and Dam No. 7.....	44.0		
425	Webb Landing Light.....	43.0	Left.....	Do.
424	Johnson Shoals Light.....	41.5	do.....	Do.
423	Tacket Shoals Light.....	39.0	Right.....	Do.
422	Poca Light.....	38.3	do.....	Do.
	Raymond City, W. Va.....	38.0		
	Lock and Dam No. 8.....	36.0		
421	Big Guano Creek Light.....	35.5	Right.....	Do.
420	Red House Daymark No. 2.....	35.0	Left.....	Do.
419	Red House Daymark No. 3.....	34.0	Right.....	Do.
418	Red House Light No. 1.....	32.0	do.....	Do.
	Winfield, W. Va.....	31.0		
417a	Washington Bar Daymark.....	30.8	Left.....	Do.
417	Little Hurricane Light No. 4.....	30.5	do.....	Do.
416	Little Hurricane Daymark, No. 2.....	30.0	do.....	Do.
415	Big Hurricane Light No. 4.....	28.8	Left.....	Do.
414	Big Hurricane Daymark No. 2.....	28.5	do.....	Do.
413	Vintraux Daymark.....	27.3	do.....	Do.
412	Midway Light.....	26.0	Right.....	Do.
411	Alexander Shallow Daymark.....	25.0	Left.....	Do.
	Lock and Dam No. 9.....	25.25		

Distances, Kanawha River—Continued.

No. of light or mark.	Locality.	Miles from Point Pleasant.	Side of channel.	Color of aid.
410a	Fraters Lane Daymark.....	24.0	Left.....	White.
410	Knob Shoals Light No. 4.....	23.0	do.....	Do.
409	Knob Shoals Light No. 2.....	22.5	do.....	Do.
408	Buffalo Light.....	21.5	Right.....	Do.
407	Atkeson Dam Light.....	19.5	do.....	Do.
	Lock and Dam No. 10.....	19.0		
406	Emery Dam Light.....	18.4	Left.....	Do.
405a	Emery Dam Daymark.....	18.3	Right.....	Do.
405	Indian Rocks Light.....	17.5	do.....	Do.
404a	Coopers Dam Daymark.....	16.8	do.....	Do.
404	Arbuckle Shoals Light.....	15.3	Left.....	Do.
403	Maupin Landing Light.....	14.5	Right.....	Do.
402	Leon Light.....	11.8	do.....	Do.
401	Ten-mile Creek Light.....	9.3	do.....	Do.
400a	Nine Mile Creek Daymark.....	8.8	Left.....	Do.
400	Brighton Light.....	6.0	Right.....	Do.
399a	Five mile Creek Daymark, No. 2.....	4.8	Left.....	Do.
399	Five Mile Creek Light, No. 1.....	4.3	Right.....	Do.
	Lock and Dam No. 11.....	1.75		
398	Government Pier Light.....	0.8	Left.....	Do.
	Baltimore & Ohio Ry. bridge (channel span, 458 feet; height, 90.9 feet).	0.5		
	Point Pleasant, W. Va.....	0.0		

GUYANDOT RIVER.

The Guyandot River was at one time improved by the building of six locks and dams, all of which were practically obliterated prior to 1874. At present navigation is confined to push boats and rafts, the head of navigation varying with seasons, and depending from year to year on height of maximum flood.

Table of distances from Ohio River.

Locality.	Distance from mouth.	Locality.	Distance from mouth.
	<i>Miles.</i>		<i>Miles.</i>
Guyandot.....	0.0	Big Creek.....	60.5
Russell Creek highway bridge.....	2.75	Stone Branch.....	61.8
Mud River.....	7.0	Kitchen.....	62.1
Barboursville.....	7.5	Chapmanville.....	64.7
Chesapeake & Ohio R. R. bridge.....	11.5	Godby.....	68.0
Rogers Mill Dam.....	12.25	Pecks Mill.....	69.6
Martha.....	13.0	Ralumco.....	71.2
Chesapeake & Ohio R. R. bridge.....	16.6	Henlawson.....	72.2
Reach.....	21.5	Peach Creek and Hughey.....	73.5
Salt Rock Dam.....	23.75	Bridge, Aracoma Coal Co.'s.....	75.2
Salt Rock.....	24.5	Foot of Island.....	75.4
Highway bridge.....	24.5	Head of Island.....	76.0
West Hamlin.....	28.0	Chesapeake & Ohio R. R. bridge.....	76.2
Ben Johnson Ford.....	28.7	Logan.....	76.5
Falls of Guyandot.....	29.0	Stallings.....	78.0
Mill Creek Ford.....	30.6	McConnell.....	79.0
Sheridan.....	31.5	Rolle.....	81.3
Branchland.....	33.4	Manbar.....	86.0
Midkiff.....	37.1	Man.....	89.0
Rockville.....	38.1	Christian.....	94.6
Ranger.....	42.3	Gilbert.....	102.0
Lattin.....	46.6	Justice.....	106.5
Gill.....	47.0	Simon.....	118.0
Sand Creek Station.....	50.7	Baileysville.....	124.0
Eden Park.....	52.0	Bartley.....	128.0
Hart.....	54.5	Pineville.....	138.5
Ferrellsburg.....	55.8	Elmore.....	151.0
Fry.....	57.2	Mullens.....	153.0

BIG SANDY RIVER.

The Big Sandy River has been improved by the building of three locks and dams on the main river and one lock and dam each on Tug

and Levisa Fork. The effect of these works has been to carry slack water from the Ohio River to Louisa, Ky., at the forks, a distance of 27 miles, together with 18 miles on Levisa and 12 miles on Tug Fork. The locks afford a minimum width of 51.5 feet, a length of 157.5 feet, and a navigable depth of 6 feet.

The construction of one additional lock and dam on each fork is proposed, which will extend the navigable depth of 6 feet to a point on Levisa Fork below White House Shoal and to Calf Creek on Tug Fork, approximately 27 and 22 miles, respectively, above Louisa.

At present open-channel work facilitates push-boat navigation and rafting to above Pikeville, on Levisa Fork, and to Pond Creek, on Tug Fork.

Table of distances.

BIG SANDY.

Place.	Distance from Ohio River.	Place.	Distance from Ohio River.
	<i>Miles.</i>		<i>Miles.</i>
Lock No. 1.....	0.3	Turmanns Ferry.....	14.0
Chesapeake & Ohio R. R. bridge.....	1.0	Buchanon.....	14.7
England Hill.....	2.0	Dean Bend.....	16.8
Campbells Branch.....	4.5	Hubbardstown.....	18.5
Savage Branch.....	5.4	Blaine.....	19.9
Nigger Head.....	7.3	Fullers.....	22.0
West Virginia, Whites Creek.....	8.4	Old Licks.....	24.3
Durbin Creek.....	10.1	Lock No. 3.....	26.6
Cragston Creek.....	11.4	Louisa.....	27.0
Lock No. 2.....	12.9		

LEVISIA FORK.

Place.	Distance from Louisa.	Place.	Distance from Louisa.
	<i>Miles.</i>		<i>Miles.</i>
Louisa.....	0.0	East Point.....	45.6
Three Mile Bridge.....	2.7	Johns Creek.....	46.8
Torchlight Tipple.....	6.0	Wiremanns.....	49.2
Lock No. 1 (Chapman).....	8.25	Moody George.....	51.0
Griffiths Creek.....	8.9	Patrick Swirl.....	52.1
Shannon Branch.....	12.1	Abbott.....	53.3
Georges Creek.....	15.0	Prestonburg.....	54.9
Old Peach Orchard.....	17.6	Brandy Keg.....	58.1
Lock No. 2 (proposed).....	17.7	Sugar Loaf.....	59.5
Richardson.....	19.2	Cow Creek.....	61.9
Graves Shoal.....	20.8	Beaver.....	65.0
Lost Creek.....	23.5	Frater.....	67.5
Chestnut.....	24.8	Ivy.....	69.6
White House.....	27.5	Mare Creek.....	72.5
Toms Creek.....	31.2	Mud.....	75.5
Buffalo Creek.....	36.3	Cow Pan.....	79.8
Paintsville.....	38.6	Stone Coal.....	82.0
Halls Gate.....	40.0	Pikeville.....	88.5
Widow Preston Shoal.....	42.8		

TUG FORK.

Louisa.....	0.0	Stone Coal.....	30.6
Salt peter.....	3.7	Marrowbone.....	33.7
Lock No. 1.....	3.8	Warfield.....	34.6
Donithan.....	7.4	Wolf Creek.....	36.5
Lost Creek.....	9.9	Long Branch.....	40.0
Falls.....	10.4	Pigeon or Naugatuck.....	41.9
Lock No. 2 (proposed).....	11.5	Mount Sterling.....	45.1
Drag.....	15.0	Nolan.....	48.7
John Smith Shoal.....	16.7	Alley Island.....	51.4
Camp Creek.....	18.0	Buffalo.....	52.7
Calf Creek.....	21.8	Sugar Tree Falls.....	53.9
Turkey.....	24.0	Williamson.....	57.3
Big Elk.....	25.5	Pond Creek.....	58.1
Crum Muldam.....	27.0		

SCIOTO RIVER.

A limited steamboat navigation was at one time carried on between Piketon and the Ohio River. There was also a connection between the Ohio River and the Ohio system of canals. The lower end of the canal is now *practically obliterated* and there is *no navigation in the open river*.

LITTLE MIAMI RIVER.

Not navigable, except over short stretch of pools for canoes and like small craft.

Table of distances.

Locality.	Distance from Ohio River.	Locality.	Distance from Ohio River.
	<i>Miles.</i>		<i>Miles.</i>
Ohio River.....	0.0	South Lebanon.....	29.6
Highway Bridge.....	0.5	Morrow near mouth of Todds Fork.....	35.6
Traction Bridge.....	0.8	Ft. Ancient.....	42.3
Railroad bridge.....	6.9	Oregonia.....	45.9
Plainville Bridge.....	8.1	Corwin.....	50.3
Mouth of East Fork Little Miami River.....	11.0	Waynesville.....	50.8
Millford.....	12.9	Roxanna.....	57.0
Miamiville Bridge.....	15.5	Spring Valley.....	59.9
Branch Hill.....	18.1	Bellbrook.....	63.0
Epworth Heights.....	19.1	Railroad bridge.....	71.8
Loveland.....	20.3	Do.....	71.9
County line, east side of river.....	20.4	Trebens.....	72.1
Baltimore & Ohio R. R. bridge.....	20.6	Oldtown Highway Bridge.....	75.9
County line, west side of river.....	23.8	Goes Railroad Bridge.....	76.6
Foster.....	26.5	Yellow Springs.....	83.8
Kings Mills.....	28.1		

NOTE.—The distances above given are scaled from map and are roughly approximated only.

EAST FORK OF LITTLE MIAMI RIVER.

Locality.	Distance from main stream.	Locality.	Distance from main stream.
	<i>Miles.</i>		<i>Miles.</i>
Main River.....	0.0	Blowville.....	31.6
Highway Bridge.....	0.4	Marathon.....	36.9
Perintown.....	6.1	Fayetteville, lower bridge.....	42.0
Baldwin.....	8.0	Fayetteville, upper bridge.....	43.3
Batavia Bridge.....	13.4	Highway Bridge.....	49.0
Baywood Bridge.....	22.5	Railroad bridge, Lynchburg.....	55.1
Highway Bridge near Williamsburg.....	25.0	Headwaters, Clinton County.....	71.5
Railroad bridge.....	26.4		

NOTE.—The distances above given are scaled from map and are roughly approximated only.

LICKING RIVER.

The Licking River was at one time partly improved by the State of Kentucky by the construction of locks and dams. All the locks and practically all the dams are now obliterated, and navigation is confined to rafting on the upper river during high stages, and for steamboats during low water between the Ohio and Three Mile ripple; during higher stages steamboats sometimes run up to Latonia, Ky.

Licking River distances.

Locality.	Distance from mouth.	Locality.	Distance from mouth.
	<i>Miles.</i>		<i>Miles.</i>
Three Mile Ripple.....	3.0	Ringos Mill.....	140.5
Six Mile Ripple.....	6.0	Achisons Ripple.....	151.5
Dutchmans Ripple.....	22.75	Iles Mill.....	163.25
Willow Ripple.....	34.25	Adams Ripple.....	169.5
Hendricks Ripple.....	44.0	Caughs Shoal.....	176.0
Falmouth.....	51.25	Gills Mill.....	182.0
Buoys fish dam.....	67.25	Wilsons Ripple.....	191.25
Claysville.....	77.75	Ellingtons Ripple.....	203.5
Panther Creek Ripple.....	91.25	Blackwater.....	212.0
Island below Fleming Creek.....	106.5	Flat Woods Ripple.....	
Andrews Mill.....	127.25		

MIAMI RIVER.

The Miami was at one time extensively navigated by flat boats loaded with produce for the New Orleans market. There is at present no navigation, except for pleasure boats in pools at some distance above the mouth. The Miami and Erie Canal was at one time connected with the Ohio River at Cincinnati, and extended thence through the valleys of the Miami and Maumee to Lake Erie at Toledo. The canal is now used for navigation on short stretches only, and *has no connection with the Ohio River.*

Table of distances.

Place.	Distance from Ohio River.	Place.	Distance from Ohio River.
	<i>Miles.</i>		<i>Miles.</i>
Ohio River.....	0.0	Cincinnati, Hamilton & Dayton R. R. bridge, Hamilton, Ohio.....	35.1
Baltimore & Ohio R. R. bridge.....	0.1	High Street Bridge, Hamilton, Ohio....	35.3
Lost Bridge.....	4.2	Black Street Bridge, Hamilton, Ohio....	35.9
Mouth of White Water River.....	4.8	New River R. R. bridge, Hamilton, Ohio.	38.3
Big Four R. R. bridge, Cleves.....	7.4	Middletown.....	53.6
Highway Bridge, Cleves.....	7.5	Mouth of Twin Creek.....	59.9
Miami Dam.....	13.9	Franklin.....	61.3
Miami Bridge.....	14.3	Miamisburg.....	68.6
Chicago, Cincinnati & Louisville R. R. bridge (Chesapeake & Ohio of Indiana).....	18.9	Dayton.....	82.4
New Baltimore Bridge.....	20.1	Mouth of Mad River.....	84.7
New Baltimore Dam.....	20.5	Mouth of Stillwater River.....	85.8
Venice Bridge.....	24.8	Tadmor.....	99.4
County line, west side of river.....	25.1	Troy.....	113.1
County line, east side of river.....	25.8	Piqua.....	122.1
Mouth of Indian Creek.....	26.0	Mouth of Loramie Creek.....	126.4
Fairplay, Butler County.....	29.9	Sidney.....	134.8
Columbia Highway Bridge, Hamilton, Ohio.....	34.6	Lewistown Reservoir.....	163.6

WEST FORK OR LORAMIE CREEK.

Mouth of Loramie Creek.....	126.4	Loramie Reservoir.....	151.6
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NOTE.—The distances above given are scaled from map and are roughly approximated only.

KENTUCKY RIVER.

Slack water has been extended up the Kentucky River for a distance of 260.5 miles from the Ohio, by the building of 14 locks and dams. The locks afford a minimum width of 37 feet, a length of 145 feet, and a navigable depth of 6 feet.

Table of distances and location of locks, Kentucky River.

Lock No.	Name of place.	From Ohio River.	Lock No.	Name of place.	From Ohio River.
		<i>Miles.</i>			<i>Miles.</i>
1	Carrollton, Ky.....	0.0	8	Big Hickman Creek.....	135.0
	Carrollton lock.....	4.0		Little Hickman lock.....	139.3
	Worthville.....	10.6		Sugar Creek.....	141.5
	Eagle Creek.....	11.0		Paint Lick Creek.....	145.0
2	Gratz.....	29.6	9	Silver Creek.....	149.0
	Lockport lock.....	31.0		Valley View lock.....	157.3
	Lockport, Ky.....	31.0		Valley View, Ky.....	157.4
	Fevern Creek.....	38.0		Tates Creek.....	157.5
3	Cedar Creek.....	41.6	10	Raven Run.....	165.0
	Monterey.....	41.6		Lower Howard Creek.....	173.0
	Gest lock.....	42.0		Red House lock.....	176.3
	Flat Creek.....	48.5		Otter Creek.....	177.5
4	Elkhorn Creek.....	52.0	11	Ford.....	177.6
	Frankfort lock.....	65.0		Four-Mile Creek.....	180.0
	Benson Creek.....	65.5		Muddy Creek.....	184.0
	Frankfort, Ky.....	66.0		Upper Howard Creek.....	186.0
5	Glenns Creek.....	71.5	12	Red River.....	191.0
	Clifton.....	79.0		College Hill lock.....	201.3
	Tyrone lock.....	82.2		Drowning Creek.....	204.0
	Tyrone, Ky.....	84.5	13	Irvine.....	217.5
6	Gilberts Creek.....	89.0		Station Camp Creek.....	218.0
	Clear Creek.....	95.5		Ravenna lock.....	221.3
	Salvisa lock.....	96.2		Millers Creek.....	226.0
	Shawnee Run.....	106.5	14	Thirteen lock.....	239.3
7	Brooklyn.....	112.0		Sturgeon Creek.....	248.4
	High Bridge lock.....	117.0		Heidelberg.....	248.4
	High Bridge, Ky.....	118.4		Heidelberg lock.....	248.3
	Dicks River.....	118.7		Beattyville, junction of North and South Forks.....	255.0
	Jessamine Creek.....	126.0		Middle Fork (on North Fork).....	258.0
	Camp Nelson.....	134.9		Head of Kentucky Basin(N.Fork).....	410.0

Distances on forks of Kentucky River.

NORTH FORK.

Name of place.	From Beattyville.	Name of place.	From Beattyville.
	<i>Miles.</i>		<i>Miles.</i>
Beattyville.....	0.0	Lots Creek.....	83.5
Mouth of Middle Fork.....	3.0	Hazard.....	96.0
Walker Creek.....	5.0	Carrs Creek.....	108.0
Frozen Creek.....	31.0	Leatherwood Creek.....	113.0
Caney Creek.....	39.0	Rockhouse Creek.....	121.5
Jackson.....	46.0	Whitesburg.....	137.0
Quicksand Creek.....	47.5	Boone Fork.....	147.0
Troublesome Creek.....	52.0	Head of North Fork.....	155.0

SOUTH FORK.

Beattyville.....	0.0	Red Bird Creek.....	43.0
Booneville.....	10.0	Goose Creek.....	43.0
Sextons Creek.....	28.0	Manchester.....	58.0
Buffalo Creek.....	31.0	Head of South Fork.....	77.0
Bullskin Creek.....	42.6		

MIDDLE FORK.

Name of place.	From North Fork.	Name of place.	From North Fork.
	<i>Miles.</i>		<i>Miles.</i>
North Fork.....	0.0	Greasy Creek.....	74.0
Crockettsville.....	31.0	Beech Fork.....	78.5
Cutshin Creek.....	59.5	Head of Middle Fork Basin.....	93.2
Hyden.....	65.0		

GREEN, BARREN, AND ROUGH RIVERS.

The improvement of the Green River and its branches at present includes six locks and dams on Green River carrying slackwater to Mammoth Cave Landing, a distance of 196 miles from the Ohio; one lock and dam on Barren River, which extends slackwater to Bowling Green, Ky. (179.5 miles from the Ohio); and one lock and dam on Rough River which carries slackwater to the town of Hartford, Ky., about 29½ miles above Green River.

Pending the completion of Dam No. 48, Ohio River, navigable depths between Lock No. 1, Green River, and the Ohio vary according to the stages of the latter. At extreme low water below Lock No. 1, there is only about eight-tenths of a foot on lower miter sill of that lock.

The locks on the three streams afford minimum capacity as follows:

Green River:	Feet.
Width	35.5
Length	137.5
Navigable depth	5.3
Barren River:	
Width	35.56
Length	138
Navigable depth	5.0
Rough River:	
Width	27
Length	123
Navigable depth	4

Distances on Green River.

Locality.	Miles.	Locality.	Miles.
Mouth of Green River.....	0.0	Lock No. 3.....	108.5
Race Creek.....	3.1	Hudnall's.....	112.5
Opsom.....	5.25	Enola.....	115.0
Lock No. 1.....	8.5	Mining City.....	117.75
Buck Creek.....	11.25	Dixons Ferry.....	119.0
Bluff City.....	13.0	Lundy Graves.....	121.25
Masons Bend.....	15.5	Reeds Ferry.....	123.0
Cummings Landing.....	17.9	Austin's.....	124.5
Martins Creek.....	19.0	Thomas's Landing.....	127.5
Burk City.....	22.0	Cromwells Landing.....	130.0
Calhouns Ferry.....	25.1	Cromwell.....	131.0
Curdsville.....	27.75	Borahs Ferry.....	132.25
Delaware.....	34.3	Carsons Landing.....	134.5
Eastwoods Ferry.....	42.5	Wilsons Landing.....	134.75
Steamport.....	44.5	Indian Camp Creek.....	137.5
Deer Creek.....	45.75	Widow Moore's.....	138.75
Wrightsburg.....	49.0	Old Aberdeen.....	142.0
Whitesburg.....	51.0	Morgantown.....	143.75
Ashbysburg.....	53.75	Rones Landing.....	145.0
Pond River.....	54.5	Skaggs Landing.....	147.0
Jake Shutt's.....	57.75	Lock No. 4.....	149.5
Lock No. 2.....	62.75	Mouth of Barren River.....	150.0
Houstons Ferry.....	66.25	Martin's coal bank.....	151.5
Mouth of Rough River.....	71.1	Little Bull Creek.....	152.0
Point Pleasant.....	74.1	Hudnalls Landing.....	152.4
Smallhouse.....	79.5	Clay Lick Creek.....	152.6
South Carrollton.....	83.5	Fannie Rones Landing.....	152.25
Kinslow Bluff.....	85.75	Stewarts Landing.....	152.5
Shanks Landing.....	90.0	Big Bull Creek.....	154.1
Mortons Ferry.....	92.0	Martin Rones Landing.....	156.1
Ceralvo.....	93.0	Lost Creek Landing.....	157.25
Rockport.....	96.0	Johnsons Landing.....	157.6
Pond Creek.....	97.75	Little Reddy Creek.....	158.1
Airdrie.....	99.0	Cherrys Landing.....	159.0
Paradise.....	99.5	Threlkel P. O.....	159.9
Williams.....	103.5	K. Edgars Landing.....	160.5
Spur Creek.....	105.0	Widow Keowns Landing.....	161.5

Distances on Green River—Continued.

Locality.	Miles.	Locality.	Miles.
Big Reedy Creek.....	162.0	Cutliff's old mill.....	174.4
Smiths Landing.....	162.6	Parrishs Mill.....	174.6
Indian Creek.....	162.9	Lindsays Landing.....	176.4
Edgars Landing.....	163.5	John Stites Landing.....	177.9
Fallover Branch.....	164.4	Long Branch.....	178.1
Wash Goss's Landing.....	164.6	Vincent's Landing.....	179.1
Massey Springs.....	165.75	Brownsville Landing.....	179.6
Honakers Ferry.....	166.1	Lock No. 6.....	180.6
Lock No. 5.....	167.25	Indian Creek.....	181.5
Bear Creek.....	168.0	Nolan River.....	182.4
Dalton's Landing.....	169.1	Selfs Ferry.....	184.0
Watts Landing.....	170.4	John Selfs Landing.....	184.6
Rays Landing.....	170.9	Tom Kees Landing.....	187.4
Little Beaver Dam Creek.....	171.1	Arthurs Landing.....	188.5
Pittsburgh Asphalt Landing.....	171.5	Sanders Ferry.....	189.0
Yorks Landing.....	172.25	John Smiths Landing.....	189.5
Honey Creek.....	172.6	D. Sanders Ferry, Turnhole.....	191.25
Carriers Landing.....	172.75	Ganter Cave Landing.....	193.1
Potters Landing.....	173.6	Mammoth Cave Landing.....	196.0
Houghins Landing.....	174.0		

Distances on Barren River.

Locality.	Miles.	Locality.	Miles.
Mouth of Barren River.....	0.0	Lock No. 1, Barren River.....	15.0
Mud Creek.....	2.75	Bowling Green.....	29.5
Mouth of Gasper River.....	8.5		

WABASH RIVER.

Slack-water improvement exists at Grand Rapids only, where a lock and dam has been constructed affording a minimum of 52 feet in width, 214 feet in length, and 3.2 feet in navigable depth. Open-channel navigation has been somewhat improved by the building of wing dams and the removal of obstructions. At one time the Wabash Canal extended from Evansville to Toledo on Lake Erie, via the valleys of the Wabash and Maumee, but this work has been practically obliterated and there is at present no connection between the Wabash and the Lake.

Table of distances.

Name of localities.	Distance from mouth.	Name of localities.	Distance from mouth.
	<i>Miles.</i>		<i>Miles.</i>
Mouth of Wabash River.....	0.0	Marshall's Ferry, telephone cross.....	29.04
Skidmores Bar (foot).....	3.12	Marshall's Island (foot).....	29.26
Skidmores Bar (head).....	3.61	Rising Sun; Dogtown Landing.....	29.48
Running Slough (right bank).....	5.11	Louisville & Nashville R. R. bridge.....	30.74
Mackeys Island (foot).....	7.14	Grand Chain (foot).....	31.04
Mackeys Island (head).....	7.84	Grand Chain (head).....	31.70
Bone Bank (lower end).....	9.04	Maunie.....	33.88
Bone Bank (upper end).....	9.43	Mouth of Sandy Slough.....	35.54
Park landing, schoolhouse.....	12.65	Twin Sister Island No. 2 (foot).....	36.17
Little Wabash River.....	14.98	Twin Sister Island No. 2 (head).....	36.70
Fretageots Ferry, telephone cable.....	22.20	Twin Sister Island No. 1 (foot).....	36.99
Little Chain Cut-off (foot).....	23.12	Twin Sister Island No. 1 (head).....	37.35
Little Chain (foot).....	25.09	Warwick ripple.....	38.91
Little Chain (head).....	25.43	Rush Creek (left bank).....	39.10
Little Chain Cut-off (head).....	26.01	Mink Island (foot).....	39.39
Big Creek (lower mouth).....	28.15	Mink Island (head).....	40.46
Big Creek (upper mouth).....	28.48	Winklers Ferry.....	40.78

Table of distances—Continued.

Name of localities.	Distance from mouth.	Name of localities.	Distance from mouth.
	<i>Miles.</i>		<i>Miles.</i>
Foot of New Harmony Cut-off.....	41.43	Kelsos Creek.....	129.52
Sugar Tree Ridge.....	43.45	Fort Knox.....	131.23
Sandy Slough (head).....	44.53	Seven Mile Island (foot).....	132.72
Hodges Landing.....	45.28	Seven Mile Island (head).....	134.07
Turkey Island (foot).....	47.28	Marla Creek.....	134.74
Turkey Island (head).....	48.78	Belgrade Landing.....	136.07
Mouth of Fox River.....	49.12	Russellville Ferry.....	140.35
Island, foot.....	49.81	Busseron Creek.....	141.90
Island, head.....	50.08	Swan Island.....	143.57
Head of New Harmony Cut-off.....	51.26	Buck Creek.....	145.67
New Harmony Ferry.....	51.64	Doe Run Creek.....	145.75
Juno Island (foot).....	52.96	Foot of Cut-off; Johnsons ripple.....	146.86
Juno Island (head).....	53.21	Lonetown Landing; Chambers Ferry.....	148.07
Creek (left bank).....	54.22	Blacks Ripple (head).....	148.79
Black River.....	55.37	Little Busseron Creek.....	149.23
New Baltimore.....	55.76	Shaws Landing.....	149.92
Bald Point.....	56.85	Creek (right bank).....	149.99
Head of Fox River.....	57.27	Creek (left bank).....	152.19
Big Bayou.....	58.03	Turtle Creek.....	154.95
Head of Little Fox River.....	60.36	Palestine Landing, ferry.....	157.89
French Creek.....	62.14	Lamotte Creek.....	158.11
Illinois Central R. R. bridge.....	63.29	Greers Ripple (foot).....	160.09
Graville Ferry.....	65.19	Illinois Central R. R. bridge; Riverton.....	161.96
Bonpas Creek.....	65.32	Turtle Creek (left bank).....	162.57
Kingdom Island (foot).....	66.45	Eagle Island (head).....	162.76
Kingdom Island (head).....	66.74	Creek (right bank).....	163.39
Johnsons Ferry.....	68.83	Merom Ferry.....	164.81
Pearl Island (foot).....	72.19	Merom Island (head).....	165.73
Pearl Island (head).....	72.74	Harness Landing, ferry.....	168.05
Creek (right bank); Plankishaw Bend.....	74.08	Turmans Creek.....	169.51
McClearys Bluff (foot).....	79.41	Foot of Island.....	170.25
McClearys Bluff (head).....	79.82	Hutson Creek (right bank).....	171.65
Jimtown; Big Bayou.....	83.35	Hutsonville Ferry.....	171.82
Crowleyville.....	84.51	Hutsonville Cut-off (foot).....	172.47
Rochester; Cable Ferry.....	88.72	Raccoon Creek.....	174.47
Coffee Creek.....	89.03	Greens ripple (foot).....	175.17
Coffee Island (foot).....	89.15	York Cut-off.....	176.32
Head of dike, Coffee Island.....	89.67	York Ferry.....	177.14
Duck Island (foot).....	90.48	Mill Creek, at York.....	177.38
Duck Island (head).....	90.87	Devils Elbow ripple (head).....	178.39
Big Four R. R. bridge.....	91.46	Niles Landing, Ferry.....	181.62
Patoka Island (foot).....	92.86	Prarie Creek.....	183.32
Greathouse Creek (right bank).....	93.53	Bridge Piers; Chenoweths Reach.....	184.52
Patoka Island (head).....	94.20	Little Sycamore Bend (head bar).....	185.90
Southern R. R. bridge.....	94.51	Prevosts Ferry.....	187.24
Ferry, mouth of Patoka River.....	94.60	Bowen Ferry.....	188.08
Dike.....	95.32	Darwin Ferry.....	189.99
White River.....	95.62	Darwin Cut-off (foot).....	191.75
Mount Carmel, Fifth Street Ferry.....	95.72	Cable Ferry.....	192.14
Cable Ferry.....	96.70	Aurora Ripple (foot).....	192.49
Grand Rapids Lock and Dam.....	97.10	Darwin Cut-off (head).....	193.78
Hanging Rock.....	99.41	Big Creek.....	195.70
Crawfish Creek (right bank).....	99.89	Strains Ripple (head).....	197.82
Buchanans Ferry; Patton Station.....	101.75	Ashmore Creek.....	198.84
Little Rock post-office ferry.....	105.25	State Line (corner Stone).....	199.60
River Deshee.....	108.78	Raymonds Ripple (head).....	199.71
Towhead (foot).....	110.20	Honey Creek (left bank).....	199.90
Poker Creek (right bank).....	110.75	Goose Nest Bar (head).....	201.58
Raccoon Creek (right bank).....	111.18	Honey Creek (left bank).....	203.61
St. Francisville Ferry.....	115.14	Sharps Ferry.....	205.55
Big Four R. R. bridge.....	118.50	Eight Mile Island (foot).....	205.90
Nine Mile, or Pork Island (foot).....	119.28	Eight Mile Island (head).....	206.45
Nine Mile, or Pork Island (head).....	119.54	Musgrave Ripple.....	206.88
Embarrass River.....	122.10	Sugar Creek.....	212.00
Vincennes wagon bridge.....	127.82	Creek (left bank).....	212.60
Baltimore & Ohio Southwestern R. R. bridge.....	128.25	Terre Haute, wagon bridge.....	214.37

CUMBERLAND RIVER.

The lower division of the river extends from the Ohio River to the city of Nashville, Tenn., a distance of 192.6 miles. On this stretch three locks and dams are now in operation, and the remaining three are under construction.* Open-channel improvement is proposed from the Ohio to a point 43.6 miles upstream.

* These six locks will afford a minimum of 52 feet in width, 280 feet in length, and a navigable depth of 6.5 feet.

On the upper division (above Nashville) the first seven locks and dams are in operation; also Dam No. 21. These locks also afford a minimum of 52 feet in width, 280 feet in length, and a navigable depth of 6.5 feet.

The first seven locks afford a navigable depth of 6 feet from Lock No. 1 (2.6 miles below Nashville) to Westpoint, Tenn. (127.8 miles). Lock 21 provides a navigable depth of 6 feet to Waitsboro Shoals (25 miles) and 4 feet from Waitsboro Shoals to Burnside, Ky. (4 miles).

Open-channel work from West Point to Lock No. 21, Ky. (171.9 miles), provides usually a navigable depth of 1.3 feet from December 1 to August 1.

Table of distances on Cumberland River—Tennessee and Kentucky.

[From Burnside (Cincinnati Southern R. R. bridge) to Nashville, Tenn., distances from survey of 1883 modified in accordance with 1913 survey from Lock 21 to West Point.]

Distance from Burnside.	Location.	Bank.	Distance from Burnside.	Location.	Bank.
<i>Miles.</i>			<i>Miles.</i>		
0.0	Burnside (Cincinnati Southern R. R. bridge).		53.4	Indian Creek Shoal (foot).....	
0.5	South Fork.....	Left.	55.3	Coopers or Long Bottom Island (head).	
3.8	Waitsboro.....	Right.	55.4	Lock and Dam No. 16 (proposed).	Right.
4.1	Newells Reef.....		55.6	Coopers or Long Bottom Island (foot).	
8.4	Fishing Creek.....	Do.	56.9	Boyd's Bar (head).....	
9.7	Fords Island.....		57.2	Kendall, Ky.....	Do.
14.2	Mill Springs.....	Left.	57.2	Little Indian Creek.....	Do.
15.5	White Oak Creek.....	Right.	57.2	Boyd's Bar (foot).....	
19.2	Forbush Creek.....	Do.	58.3	Black Fish Shoal (head).....	
20.0	Little Cub Creek.....	Do.	58.7	Black Fish Shoal (foot).....	
21.2	Shinbone Bluff.....	Do.	59.7	Helm, Ky.....	Do.
23.9	Fall Creek.....	Left.	59.7	Heath's Landing.....	Left.
25.0	Norman Landing.....	Do.	59.8	Blankenship Island (head).....	
29.0	Lock and Dam No. 21.....	Do.	60.3	Blankenship Island (foot).....	
29.0	Palace, Ky.....	Right.	61.2	Campbell's Island (head).....	
29.7	Thomas Branch Shoal (head).....		61.7	Rock Lick Creek.....	Do.
29.7	Thomas Branch.....	Do.	61.7	Campbell's Island (foot).....	
29.8	Thomas Branch Shoal (foot).....		62.0	Salt Lick Creek.....	
33.5	Bart, Ky.....	Left.	62.2	Olga Landing, Ky.....	Right.
34.8	Harmons Shoals (head).....		62.5	Creelsboro Shoal (head).....	
35.5	Harmons Creek.....	Do.	62.7	(Upper) Creelsboro Landing, Ky.	Do.
35.5	Harmons Shoals (foot).....		63.0	Creelsboro Shoal (foot).....	
36.6	Difficulty Creek and Deckra, Ky.	Do.	64.2	Lower Creelsboro Landing.....	Do.
39.9	Wolf Creek.....	Right.	64.3	Snows Island (head).....	
40.0	Wolf Creek Shoals (head).....		65.0	Snows Island (foot).....	
40.4	Lilly Creek.....	Do.	65.7	Rock House.....	Do.
40.9	Wolf Creek Shoals (foot).....		66.7	Wells Island and Shoal (head).....	
41.8	Horseshoe Bottom, Ky.....	Do.	67.7	Wells Island and Shoal (foot).....	
41.8	Greasy Creek Shoals (head).....		68.1	Tearcoat, Ky.....	Left.
41.9	Greasy Creek Shoals.....	Do.	68.1	Tearcoat Ripple (head).....	
42.1	Greasy Creek Shoals (foot).....		68.1	Tearcoat Creek.....	Do.
43.5	Belks Island and Shoals (head).....		68.1	Tearcoat Ripple (foot).....	Do.
44.5	Belks Island and Shoals (foot).....		68.6	Crow Creek.....	
44.5	Lock and Dam No. 17 (proposed).	Left.	68.6	Crow Creek Shoals (head).....	
46.8	Grahams Landing, Ky.....	Do.	68.8	Crow Creek Shoals (foot).....	
47.0	Grahams Ferry.....		71.1	Winfreys Ferry.....	
47.6	Jones Landing.....	Do.	71.1	Back Creek.....	Right.
48.4	Daffrons Landing.....	Do.	72.5	Self Shoal (head).....	
49.3	Beaver Creek.....	Do.	72.6	Self Shoal (foot).....	
50.6	Wild Goose Shoals (head).....		75.9	Willis Creek Shoal (head).....	
50.6	Wild Goose Landing.....	Do.	76.0	Brownwood Landing.....	Do.
51.0	Wild Goose Shoals (foot).....		76.2	Willis Creek.....	Left.
51.2	Rowena, Ky.....	Right.	76.4	Willis Creek Shoal (foot).....	
53.0	Indian Creek Shoal (head).....		77.1	Whetstone, Ky.....	Do.
53.1	Rowes Landing and Ferry.....	Do.	77.2	Whetstone Creek.....	Do.
53.1	Ucum, Ky.....	Left.	77.9	Spearmans Island (head).....	
53.3	Indian Creek.....	Do.			

¹ In operation.

Table of distances on Cumberland River—Tennessee and Kentucky—Continued.

Distance from Burnside.	Location.	Bank.	Distance from Burnside.	Location.	Bank.
<i>Miles.</i>			<i>Miles.</i>		
78.0	Albany Landing.....		123.2	Big Sulphur Creek.....	Right.
78.2	Lock and Dam No. 15 (proposed).	Right.	123.2	Sulphur Lick Shoal (head).....	
78.3	Spearmans Island (foot).....		123.6	Sulphur Lick Shoal (foot).....	
81.2	Crocus Creek.....	Do.	124.2	Blythe, Ky. (Chapels Landing).....	
81.3	Crocus Creek Shoal (head).....		124.6	Simms or Williams Shoal (head).....	
81.4	Crocus Creek Shoal (foot).....		125.0	Simms or Williams Shoal (foot).....	
82.5	Bakerton, Ky.....	Do.	125.0	Meredith Creek.....	Do.
82.6	Bakerton Bar (head).....		126.9	Hills Landing.....	Do.
82.9	Bakerton Bar (foot).....		126.9	Hills Shoals (head).....	
84.7	Greens Bar (head).....		127.4	Hills Shoals (foot).....	
85.0	Greens Bar (foot).....		128.7	Martinsburg, Ky.....	Left.
85.2	Rennicks Creek Shoal (head).....		129.9	McFarlands Creek.....	Right.
85.2	Rennicks Creek.....	Do.	130.2	McFarlands Landing.....	Do.
85.5	Rennicks Creek Shoal (foot).....		130.4	McFarlands Shoal (head).....	
86.6	Scotts Island (head).....		130.9	Stephens or State Line Landing.....	Do.
87.0	Scotts Island (foot).....		130.9	State Line.....	
87.3	Alexanders Bar (head).....		131.0	McFarlands Shoal (foot).....	
87.4	Goose Creek.....	Left.	131.3	Overstreet Landing.....	Left.
87.5	Alexanders Bar (foot).....		131.5	Kettle Creek Shoal (head).....	
89.4	Burkesville, Ky.....	Right.	131.6	Kettle Creek.....	Do.
90.7	Bows Ferry.....		132.0	Kettle Creek Shoal (foot).....	
92.0	Cedar Creek.....	Left.	132.6	Shut-in Shoals (head).....	
92.1	Bear Creek Island (head).....		132.7	Shut-in Shoals (foot).....	
92.4	Bear Creek.....	Do.	133.6	Lock and Dam No. 12 (proposed).....	Do.
92.5	Otter Creek.....	Do.	135.3	Big Proctor Creek.....	Right.
92.7	Bear Creek Island (foot).....		135.5	Obey River.....	Left.
93.3	Raft Creek.....	Do.	135.6	Celina, Tenn.....	Do.
93.9	Neelys Ferry.....		135.8	Celina Bar (head).....	
93.9	Walton Shoals (head).....		136.3	Celina Bar (foot).....	
94.0	Clover Creek.....	Do.	138.4	Knob Creek.....	Right.
94.4	Walton Shoals (foot).....		139.1	Bennetts Landing, Tenn.....	Do.
96.3	Tobin or Champ Shoal (head).....		139.1	Bennetts Ferry.....	
97.1	Tobin or Champ Shoal (foot).....		140.6	Upper Plumless Landing, Tenn.....	Do.
97.4	Lock and Dam No. 14 (proposed).....	Do.	140.8	Jerry Roberts Landing, Tenn.....	Left.
97.7	Marrabone Creek.....	Right.	141.1	Dry Creek.....	
98.2	Wrights Point, Ky.....	Do.	141.6	Weavers Bar (head).....	
100.3	Parmees Landing.....	Left.	141.9	Weavers Bar (foot).....	
100.7	Welbourns Bar (head).....		143.1	Butlers Landing, Tenn.....	Do.
100.9	Potters Creek.....	Do.	143.1	Mill Creek Shoal (head).....	
101.2	Welbourns Bar (foot).....		143.2	Mill Creek Shoal (foot).....	
102.3	Galloway Shoals (head).....		144.9	Turkey Creek Island (head).....	
102.3	Galloway Creek.....	Do.	145.2	Turkey Creek.....	Right.
102.4	Galloway Shoals (foot).....		145.8	Turkey Creek Island (foot).....	
105.2	Arott Landing, Ky., Careys Ferry.....	Right.	147.2	Brimstone Island (head).....	
105.2	Double Shoals (head).....		147.4	Brimstone Creek.....	Do.
105.7	Double Shoals (foot).....		148.0	Crabtree Landing.....	Do.
106.6	Cloyds Landing, Ky.....	Left.	148.0	Philamath Landing.....	Left.
106.9	Cloyds or Carters Island (head).....		148.1	Brimstone Island (foot).....	
107.4	Cloyds or Carters Island (foot).....		149.0	Tinsleys Bar (head).....	
107.6	Bluff Landing, Ky.....	Right.	149.1	Tinsleys Bar (foot).....	
108.0	Mud Camp Shoals (head).....		149.8	Walkers or Crowders Landing.....	Do.
108.1	Mud Camp Creek.....	Do.	150.2	Scantlin Island (head).....	
108.5	Mud Camp Shoals (foot).....		151.0	Scantlin Island (foot).....	
108.9	Broad Branch Shoals (head).....		151.6	Roses Bar (head).....	
109.1	Broad Branch Shoals (foot).....		151.6	Penitentiary Branch.....	Do.
109.8	Stallcupps Island (head).....		151.9	Roses Bar (foot).....	
110.1	Stallcupps Island (foot).....		152.0	Lock and Dam No. 11 (proposed).....	Do.
110.8	Strodes Landing.....	Do.	152.7	Sugar Creek.....	Do.
113.1	Biggerstaff Island (head).....		152.7	Meagsville, Tenn.....	
113.4	Biggerstaff Island (foot).....		152.9	Webster Creek.....	Right.
115.0	Judia Creek.....	Left.	154.1	Lock Branch Landing, Tenn.....	Do.
115.8	Blacks Ferry, Ky.....	Do.	154.1	Lock Branch.....	Do.
117.2	Ball Shoals (head).....		156.0	Gentrys Landing, Tenn.....	Left.
117.8	Ball Shoals (foot).....		158.8	Roaring River.....	Do.
118.0	Richardson Landing.....	Right.	158.8	Gainesboro Ferry.....	
118.7	Meshack Creek.....	Do.	159.2	Gainesboro Landing.....	Do.
119.4	Kirkpatrick or Bedford Shoals (head).....		159.2	Doe Creek.....	Do.
119.5	Kirkpatrick Landing.....	Do.	161.2	Lees Landing.....	Right.
119.6	Lock and Dam No. 13 (proposed).....	Do.	161.3	Jennings Creek.....	Do.
119.9	Geralds Landing.....		161.6	Simpson Island and Shoal (head).....	
120.0	Kirkpatrick or Bedford Shoals (foot).....		162.5	Simpson Island and Shoal (foot).....	
121.0	Wards Branch Shoals (head).....	Do.	163.2	Hensley Creek.....	
121.1	Wards Branch.....		163.2	Witcher Bar (head).....	
121.3	Wards Branch Shoals (foot).....		163.5	Witcher Bar (foot).....	
122.8	McMillans Landing or Otia, Ky.....	Do.	164.1	Cub Creek Shoals (head).....	
			164.1	Little Cub Creek Island (head).....	
			164.3	Little Cub Creek Island (foot).....	
			164.4	Cub Creek Island (head).....	
			164.7	Cub Creek.....	Right.

Table of distances on Cumberland River—Tennessee and Kentucky—Continued.

Distance from Burnside.	Location.	Bank.	Distance from Burnside.	Location.	Bank.
<i>Miles.</i>			<i>Miles.</i>		
164.9	Cub Creek Island (foot).....		248.4	Second Creek.....	Right.
165.2	Cub Creek Shoals (foot).....		253.9	Lock and Dam No. 5 ¹	Left.
166.5	Brooks Island (head).....		255.8	Hunter Point.....	Do.
166.9	Brooks Island (foot).....		263.4	Belote Bar (head).....	
167.2	Brooks Ferry.....		266.9	Cunningham Island (head).....	
168.2	Rays Bar (head).....		270.6	Calro.....	Right.
168.6	Rays Bar (foot).....		275.4	Coles Ferry.....	Do.
168.6	Lock and Dam No. 10 (proposed).	Right.	279.0	Gallatin Landing.....	Do.
169.4	Halls Landing.....	Do.	281.4	Lock and Dam No. 4 ¹	Do.
169.9	Bullards Creek.....	Do.	285.6	Cooper Island.....	
170.4	Tackett Island (head).....		296.6	Jones Island (head).....	
170.9	Tackett Island (foot).....		300.1	Lock and Dam No. 3 ¹	Do.
171.6	Dycus Landing.....	Do.	306.6	Hill Island.....	
171.9	Indian Creek Island (head).....		311.9	Stone River.....	Left.
172.1	Indian Creek.....	Do.	315.0	Beck Ripple.....	
172.2	Indian Creek Island (foot).....		317.1	Lock and Dam No. 2 ¹	Do.
173.0	Highland Ferry.....		323.4	Lewisburg & Northern Ry. Bridge.	
173.1	Wartrace Creek.....	Do.	324.1	Upper Nashville Island.....	
175.4	Flynns Lick Creek.....	Left.	326.0	Sparkman St. Bridge.....	
176.4	Fort Blount Landing.....	Do.	326.1	Nashville (Upper wharf).....	Do.
176.9	Big Branch Hollow.....	Do.	328.7	Lock and Dam No. 1 ¹	Right.
177.4	Salt Lick Island (head).....		331.5	Davidson County Bridge.....	
178.1	Salt Lick Island (foot).....		332.1	Nashville Terminal Bridge.....	
179.0	Smith Landing.....	Right.	334.8	Whites Creek.....	Do.
179.4	Salt Lick Creek.....	Do.	341.7	Richland Creek.....	Left.
179.9	Woodfork Landing.....	Do.	343.4	Clees Ferry.....	
181.3	Upper Holliman Island (head).....		350.3	Hickmans Ferry.....	
181.8	Funds Branch.....	Do.	351.7	Head Gowers Island.....	
182.1	Upper Holliman Island (foot).....		353.0	Pond Creek Ferry.....	
182.6	Phillips Branch.....	Do.	355.5	Knights Ferry.....	
182.7	Phillips Branch Shoals (head).....		359.6	Ashland City.....	Right.
183.2	Lower Holliman Island (head).....		365.1	Harpeth River.....	Left.
183.5	Phillips Branch Shoals (foot).....		367.5	Lock A ¹	Right.
183.9	Lower Holliman Island (foot).....		369.7	Betsytown.....	Left.
184.5	Martins Creek.....	Left.	373.1	Moseleys Ferry.....	
184.5	Granville, Tenn.....	Do.	376.7	Davis Ripple.....	
185.2	Gravel Bar and Shoals (head).....		377.6	Lock B ¹	Do.
185.4	Niagara Landing.....	Do.	383.7	King and Queens Bluff.....	Right.
185.5	Gravel Bar and Shoals (foot).....		387.1	Edmonsons Ferry.....	
185.6	Niagara Island (head).....		391.3	L. & N. R. R. bridge.....	
185.7	Indian Creek.....	Do.	391.7	Clarksville.....	Do.
185.8	Lock and Dam No. 9 (proposed).....	Right.	403.0	Palmyra.....	Left.
186.1	Niagara Island (foot).....		404.9	Carbondale.....	Do.
188.1	Hurricane Creek.....	Left.	406.0	New York.....	Right.
188.5	Kents Landing.....	Right.	409.3	Lock C ¹	Do.
188.8	Sullivan Island (head).....		414.0	Cumberland City.....	Left.
189.4	Sullivan Island (foot).....		421.4	Cumberland Rolling Mills.....	Do.
191.9	Buffalo Creek.....	Do.	422.7	Cross Creek Ferry.....	
191.9	Buffalo Landing.....	Do.	429.5	Dover.....	Do.
192.9	Apples Bar (head).....		430.5	Lock D ¹	Do.
193.1	Apples Bar (foot).....		430.6	Fork Donelson.....	Do.
194.5	Beasleys Bar (head).....		435.0	Gatlin Shoals.....	
194.8	Beasleys Bar (foot).....		442.0	Tobaccoport.....	Right.
195.5	Webbs or Dickens Ferry.....		443.9	Linoport (State line).....	Do.
196.9	Thompsons Ferry.....		445.3	Linton.....	Do.
197.4	Snow Creek Landing.....	Left.	445.3	Dayton Creek.....	Left.
197.9	Sand Shoals Island (head).....		450.5	Lock E ¹	Right.
198.5	Sand Shoals Island (foot).....		454.5	Devils Elbow.....	
198.9	Robinsons Landing.....	Right.	456.1	Canton.....	Do.
200.4	Lock and Dam No. 8 (proposed).....	Do.	459.6	Little River.....	Do.
200.6	Defeated Creek.....	Do.	461.1	Collins Ferry.....	
200.9	West Point, Tenn.....	Do.	462.9	Rock Castle.....	Do.
206.4	Caney Fork.....	Left.	465.2	Tennessee Rolling Works.....	Do.
210.3	Carthage.....	Right.	475.1	Lock F ¹	Left.
210.3	Carthage Bridge.....		475.1	Eddyville.....	Right.
215.9	Taylor Creek.....	Do.	477.3	Kuttawa.....	Do.
218.7	Lock and Dam No. 7 ¹	Left.	482.7	Big Horse Ford.....	
220.3	Lovell Island (head) ¹		487.2	C. O. & S. W. R. R. bridge.....	
225.9	Rome.....	Do.	490.9	Camp Rowdy.....	Do.
232.0	Willow Point.....		492.7	Iuka.....	Left.
232.5	Dixon Springs.....	Right.	499.2	Dycusburg.....	Right.
233.5	Wrights Landing.....		502.9	Pineckneville.....	Do.
234.8	Cedar Bluff Landing.....		508.0	Greens Ferry.....	
236.5	Lock and Dam No. 6 ¹	Do.	516.7	Smithland.....	Left.
239.2	Hartsville Landing.....	Do.	518.7	Ohio River.....	
242.6	John.....	Do.			

¹ In operation.² Under construction.

TENNESSEE RIVER.

The Tennessee River proper has a length of 652.1 miles, extending from the confluence of the Holston and French Broad Rivers to the Ohio at Paducah. Together with its tributaries, the Tennessee River forms a system of inland waterways that has probably been navigated more than 1,300 miles by steamboats and an additional distance of about 1,000 miles by rafts and flatboats.

For the purpose of improvement this great system is divided so as to include three principal divisions of the main river and two subsidiary systems covering certain tributaries, as follows:

The Tennessee—Main river.

	Miles.
Paducah, Ky., to Riverton, Ala., consisting of open-river improvement.....	226.5
Riverton, Ala., to Chattanooga, Tenn., including Colbert Shoals Canal (3.06 miles) with 1 lock, Muscle Shoals Canal (14.4 miles) with 9 locks, Elk River Shoals Canal (3.2 miles) with 2 locks and 1 dam; also open channel improvement between these canals and on sections of river above and below them, 1 lock and dam (proposed) at Widows Bar, Ala., 1 lock and dam (proposed) at Bellefonte Island, Ala., and a lock and dam now in operation at Hales Bar (effects slack-water navigation from a point 33 miles below to 4 miles above Chattanooga, and also develops a great water power).....	237.6
Chattanooga, Tenn., to the junction of the Holston and French Broad Rivers, including a lock and dam (proposed) near Caney Creek Shoals, and open channel improvement above and below that point.....	188.0
Total.....	652.1

Main tributaries.

French Broad (69.5 miles) and Little Pigeon (2 miles) Rivers.....	71.5
Clinch (59.5 miles) and Hiwassee (41.6 miles) Rivers.....	101.1
Total (all open-channel improvement).....	172.6
Tennessee River, main stream.....	652.1
Grand total.....	824.7

From the Ohio River to Riverton, Ala., a distance of 226.5 miles, the least available depth at low water in the Tennessee River is $3\frac{1}{2}$ feet; in the Colbert Shoals Canal, 8.1 miles long, the least available depth is 6 feet; between Colbert Shoals Canal and Florence, Ala., (21.3 miles) the least available depth is 4.2 feet; between Florence and Hales Bar, Tenn. (174.6 miles), the least available depth at extreme low water is about 0.8 foot, except in the Muscle Shoals and Elk River Shoals Canals, where the minimum low-water depth is 2.2 feet; between Hales Bar Lock and Chattanooga (33 miles) a minimum depth of 6 feet is available throughout the year; between Chattanooga and the head of the river (188 miles) the minimum available depth at extreme low water is about 1 foot. The project for dam on Muscle Shoals, near Florence, Ala., contemplates two locks with a lift of 45 feet each. All depths stated above are those of *extreme low water* and are materially increased by *fair stages* of the river.

The existing locks on the Tennessee River afford minimum dimensions as follows: Riverton Lock, 80 feet in width, 287 feet in length, and a navigable depth of 6.25 feet at extreme low water;

Muscle Shoals and Elk River Locks, 57 feet in width, 275 feet in length, and a navigable depth of 2.2 feet at extreme low water; Hales Bar Lock, 60 feet in width, 267 feet in length, and a navigable depth of 6.5 feet at extreme low water.

On the French Broad River light steamboat navigation is possible at certain seasons of the year, from the mouth to Leadvale, Tenn., a distance of 69.5 miles (minimum navigable depth about 1 foot), but boats seldom ascend above Dandridge, Tenn., a distance of 46.5 miles (minimum navigable depth about 1.9 feet). Above Leadvale, Tenn., the river is a mountain torrent with an average fall of 13.4 feet per mile.

On the Clinch River the head of steamboat navigation is Clinton, Tenn., 59.5 miles above the mouth. The minimum navigable depth is about 0.7 foot, and 1 foot is practically certain from January 15 to May 15. Raft navigation has extended from Speers Ferry to the mouth, a distance of 201 miles.

On the Hiwassee River small steamboats have ascended to Savannah Ford, 41.6 miles above the mouth. Present steamboat traffic extends only to Charleston, Tenn., about 19 miles above the mouth. The minimum navigable depths available are 2 feet to Charleston, and 1 foot, Charleston to Savannah Ford.

The available depths on French Broad, Clinch, Hiawassee, and Little Pigeon Rivers are so variable that special information should be procured in each case.

The available minimum size of locks on the various sections of slack-water improvement are as follows:

	Width.	Length.
	<i>Feet.</i>	<i>Feet.</i>
Colbert Shoals Canal (lock).....	30	287.0
Muscle Shoals Canal (locks).....	60	245.5
Elk River Shoals Canal (locks).....	60	249.5
Caney Creek Shoals (lock proposed).....	60	265.0
Hales Bar (lock).....	60	267.0

Table of distances on Tennessee River.

No. of light or mark.	Location.	Miles from Paducah.	Side of channel.	Color of aid.
	Junction of Franch Broad and Holston Rivers.....	652.1		
	Knox Co. bridge (highway), Knoxville, Tenn. Channel span, 238 feet.....	647.6		
	Southern Railway bridge. Channel span, 126 feet.....	647.3		
	Louisville & Nashville R. R. bridge. Channel span, 254 feet.....	645.5		
	Knoxville.....	645.0		
	Cherokee Land Co. bridge (highway). Channel span, 235 feet.....	644.8		
	Louisville, Tenn.....	625.1		
	Lenoir City, Tenn.....	601.0		
	Loudon, Tenn.....	591.5		
	Southern Railway bridge. Channel span, 200 feet.....	591.3		
	Kingston.....	567.8		
	Caney Creek Lock (proposed).....	559.8		
	Rockwood Landing.....	553.0		
	Ironton.....	548.9		
	Euchee.....	539.9		
	Iron Hill (spur railroad tracks).....	536.8		
	Lucknow.....	535.7		
	Pinhook.....	530.8		
	Breedenton.....	523.2		
	Cottonport.....	513.1		
	Dayton Landing.....	504.4		
	C., N. O. & T. P. Railway bridge. Lift channel span, 300 feet.....	470.7		
	Walnut St. Chattanooga bridge (highway). Channel span, 301 feet.....	464.2		
	Market St. Chattanooga bridge (highway). Channel span, 285.3 feet.....	464.1		
	Southern Railway bridge (unfinished). Channel span, 190 feet.....	434.4		
	Hales Bar Lock and Dam.....	431.1		
	Shellmound.....	425.4		
	South Pittsburg.....	418.0		
	N., C. & St. L. R. R. bridge. Channel span, 148 feet.....	414.4		
	Bridgeport, Ala.....	414.4		
	Widows Bar Lock (proposed).....	408.0		
	Bellefonte Island Lock (proposed).....	392.0		
	Proposed location, Crow Creek Lock (abandoned).....	391.4		
	Columbus City Ferry.....	366.6		
	Guntersville.....	358.1		
	Whitesburg.....	333.3		
	Triana.....	320.9		
	Bluff City.....	317.3		
	Southern Railway bridge. Channel span, 167 feet.....	304.4		
	Decatur, Ala.....	304.4		
	Elk River Shoals Canal (3.2 miles long) head.....	288.2		
	Head of Big Muscle Shoals (14.4 miles long).....	277.6		
	Louisville & Nashville R. R. and Highway Bridge. Channel span, 130 feet.....	256.5		
	Florence, Ala.....	256.5		
900	Sheffield Light.....	255.3	Right	White.
	Sheffield Landing.....	253.9		
90m	Tuscumbia Light.....	253.0	Left	Do.
	Tuscumbia Landing.....	252.4		
90m	Coffee Island Daymark.....	251.5	Right	Do.
901	Kellar Quarry Light.....	251.0	Left	Do.
901	Prides Light.....	249.5	do.	Do.
901	Smithsonia Light.....	241.0	Right	Do.
90e	Spring Creek Light.....	239.0	Left	Do.
90d	Koger Island Daymark No. 3.....	238.5	Right	Do.
90c	Koger Island Light No. 1.....	236.5	do.	Do.
	Head of Colbert Shoals Canal, 8.06 miles long.....	235.2		
90a	Colbert Shoals Canal Light.....	235.0	Left	Do.
90	Bee Tree Bend Daymark.....	228.0	Right	Do.
	Waterloo Landing.....	228.9		
	Riverton Lock (foot of Colbert Shoals) (length, 287 feet; width, 80 feet).....	226.5		
	Riverton, Ala.....	226.0		
89	Bear Creek Shoals Daymark No. 4.....	225.8	Left	Do.
88	Bear Creek Shoals Light No. 1.....	223.0	Right	Do.
87	Bear Creek Shoals Light No. 2.....	220.0	Left	Do.
86	Big Bend Shoals Light No. 4.....	204.8	do.	Do.
85	Big Bend Shoals Light No. 1.....	204.0	Right	Do.
84	Big Bend Shoals Light No. 2.....	203.0	Left	Do.
	Hamburg.....	202.0		
	Pittsburgh Landing.....	188.0		
	National Cemetery.....	197.8		
83	Diamond Island Light.....	196.8	Left	Do.
82	Wolf Island Light No. 4.....	183.0	do.	Do.
81	Wolf Island Light No. 2.....	192.5	do.	Do.

Table of distances on Tennessee River—Continued.

No. of light or mark.	Location.	Miles from Paducah.	Side of channel.	Color of aid.
	Savannah, Tenn.	189.5		
80	Chalk Bluff Light No. 4.	184.0	Left.	White.
79	Chalk Bluff Daymark No. 2.	183.0	do.	Do.
	Cerro Gordo, Tenn.	177.8		
78	Petticoat Riffle Bar Light.	175.0	Right.	Do.
	Saltillo, Tenn.	172.0		
77	Swallow Bluff Island Light No. 4.	170.3	Left.	Do.
76	Swallow Bluff Island Light No. 2.	169.8	do.	Do.
75	Eagle Nest Island Light No. 4.	163.9	do.	Do.
74	Eagle Nest Island Light No. 2.	163.0	do.	Do.
73	Roach Bar Light.	159.8	Right.	Do.
	Clifton, Tenn.	157.8		
72	Beech Creek Island Light No. 1.	155.3	Right.	Do.
70	Beech Creek Island Light No. 2.	155.0	Left.	Do.
69	Buffalo Shoals Light.	152.0	do.	Do.
68	Double Island Light.	149.3	Right.	Do.
67	Bates Landing Light.	143.0	do.	Do.
	Bronsport.	140.5		
	Perryville.	135.5		
66	Denson Island Light.	126.0	Right.	Do.
65a	Daddy Landing Daymark.	118.5	do.	Do.
65	Duck River Light.	111.5	do.	Do.
64	Duck River Towhead Bar Light No. 4.	106.5	Left.	Do.
63	Duck River Towhead Bar Light No. 2.	105.8	do.	Do.
62	Duck River Sucks Daymark No. 6.	105.3	do.	Do.
61	Duck River Sucks Light No. 4.	105.0	do.	Do.
60	Duck River Sucks Daymark No. 2.	104.8	do.	Do.
	N., C. & St. L. R. R. bridge, channel span 155 feet.	96.5		
	Johnsonville, Tenn.	96.5		
59	Reynoldsburg Island Light.	94.0	Left.	Do.
58a	Green Bottom Bar Daymark No. 2.	90.5	do.	Do.
58	Green Bottom Bar Light.	89.5	Right.	Do.
57	Turkey Island Light.	85.5	do.	Do.
56	White Oak Island Light.	83.5	Left.	Do.
	Danville, Tenn.	78.3		
	Louisville & Nashville R. R. bridge, channel span 148 feet.	78.2		
55	Hurricane Towhead Light.	76.3	Right.	Do.
54	Leatherwood Shoals Light No. 2.	73.3	Left.	Do.
53	Leatherwood Shoals Light No. 1.	72.8	Right.	Do.
52	Sandy Island Light No. 3.	70.0	do.	Do.
51	Sandy Island Light No. 1.	68.5	do.	Do.
	Paris Landing.	65.6		
50a	Sandy River Light.	65.0	do.	Do.
	Fort Henry, Tenn.	60.8		
50	Panther Creek Island Light.	59.8	Right.	Do.
49	McCullough Bar Light.	56.0	do.	Do.
48	Blood River Island Light.	51.5	do.	Do.
47	Dilday Daymark.	48.5	do.	Do.
46	Highland Landing Light.	43.3	Left.	Do.
44	Widow Reynolds Bar Light.	38.0	Right.	Do.
43	Jonathan Daymark.	36.0	Left.	Do.
42	Ingram Bar Light.	35.3	Right.	Do.
41	Pegg Landing Daymark.	33.3	Left.	Do.
40	Grubb Towhead Light.	32.3	do.	Do.
	Birmingham, Ky.	31.0		
39	Twenty-seven Mile Island Light No. 2.	27.8	Left.	Do.
38	Three Mile Island Daymark.	25.5	do.	Do.
37	Twenty-seven Mile Island Light No. 1.	25.0	Right.	Do.
	Illinois Central R. R. bridge, channel span 185 feet.	22.3		
	Gilbertsville.	22.0		
36	Little Chain Float Light No. 1.	18.0	Right.	Black.
35	Little Chain Light No. 2.	17.8	Left.	White.
34	Haddock Daymark.	16.5	Right.	Do.
33	Guess Creek Light.	16.0	do.	Do.
32	Big Chain Float Light No. 1.	15.5	do.	Black.
31	Big Chain Light No. 2.	15.0	Left.	White.
30	Jim Landing Daymark.	14.0	Right.	Do.
	Altoona.	13.9		
29	Thompson Landing Light.	7.5	Left.	Do.
	Stiles.	7.3		
	Paducah, Ky. (at mouth).	0.0		

Table of distances on tributaries of Tennessee River.

Name.	Distance above mouth.
French Broad River:	
Southern Ry. bridge, channel span 151 feet	69.5
Leadvale	69.5
Sulphur Springs	57.3
Oak Grove	55.3
Dandridge Highway Bridge, channel span 177 feet	46.5
Delia P. O. (Hix Landing)	37.4
Sinking Springs	20.7
Huffakers Ferry (road to Knoxville and Sevierville)	12.7
Riverdale	7.7
Mouth of river	0.0
Hiawassee River:	
Savannah Ford	41.6
Louisville & Nashville R. R. bridge, channel span 115 feet	34.3
Calhoun Highway Bridge, channel span 116 feet	18.9
Southern Ry. bridge, channel span 106 feet	18.8
Charleston	18.8
Mouth of river	0.0
Clinch River:	
Speers Ferry	201.0
Southern Ry. bridge, channel span 128 feet	59.5
Clinton	59.5
Louisville & Nashville R. R. bridge, channel span 170 feet	51.3
Clinch River P. O.	50.0
Vancouver P. O.	28.1
Selkirk P. O.	19.5
County bridge	1.2
Kingston	0.8
Mouth of river	0.0
Little Pigeon River (28.6 miles above mouth of French Broad River):	
Catlettsburg	2.0
Roane Co. highway bridge, channel span 146 feet	1.2
Mouth of river	0.0

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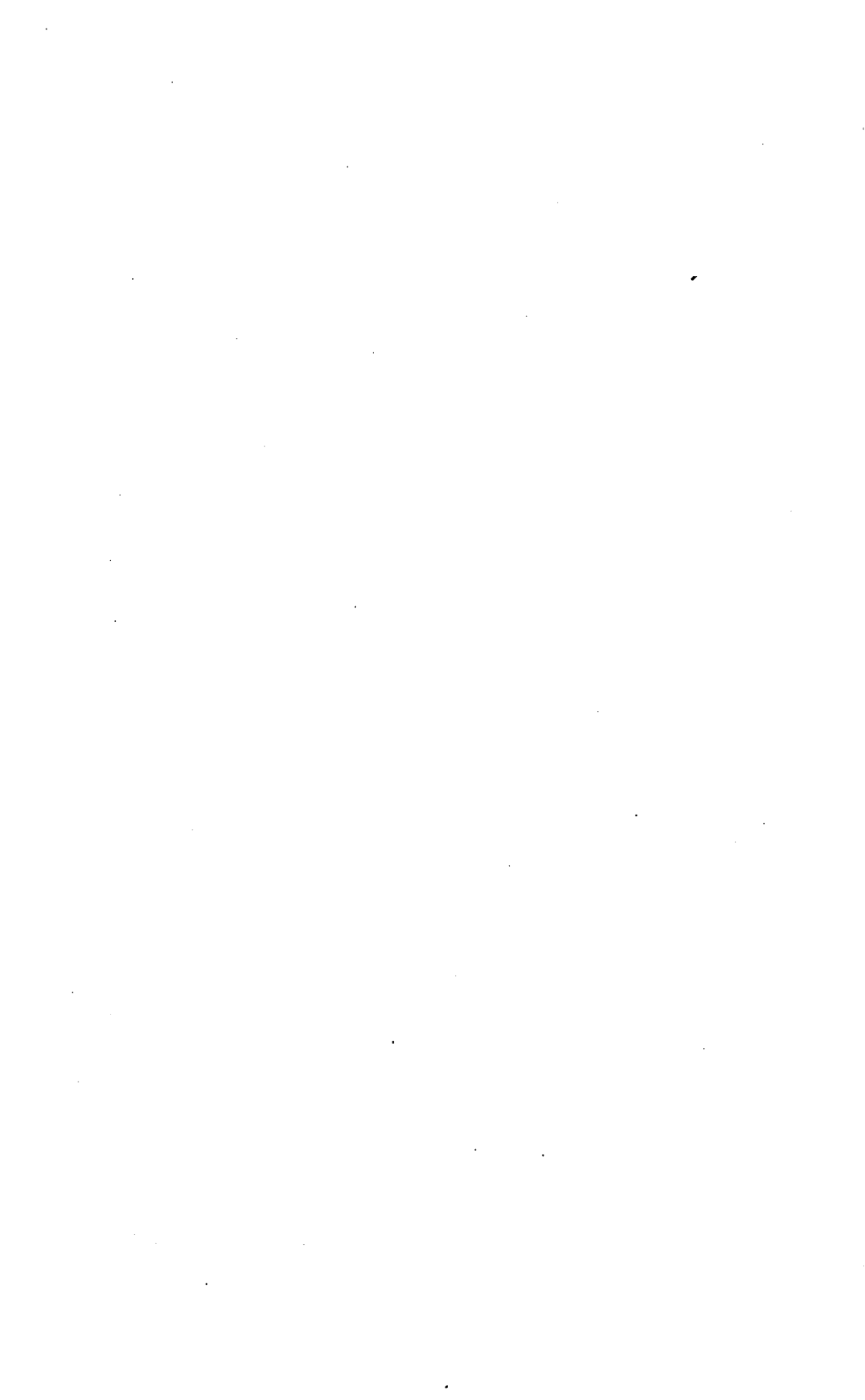
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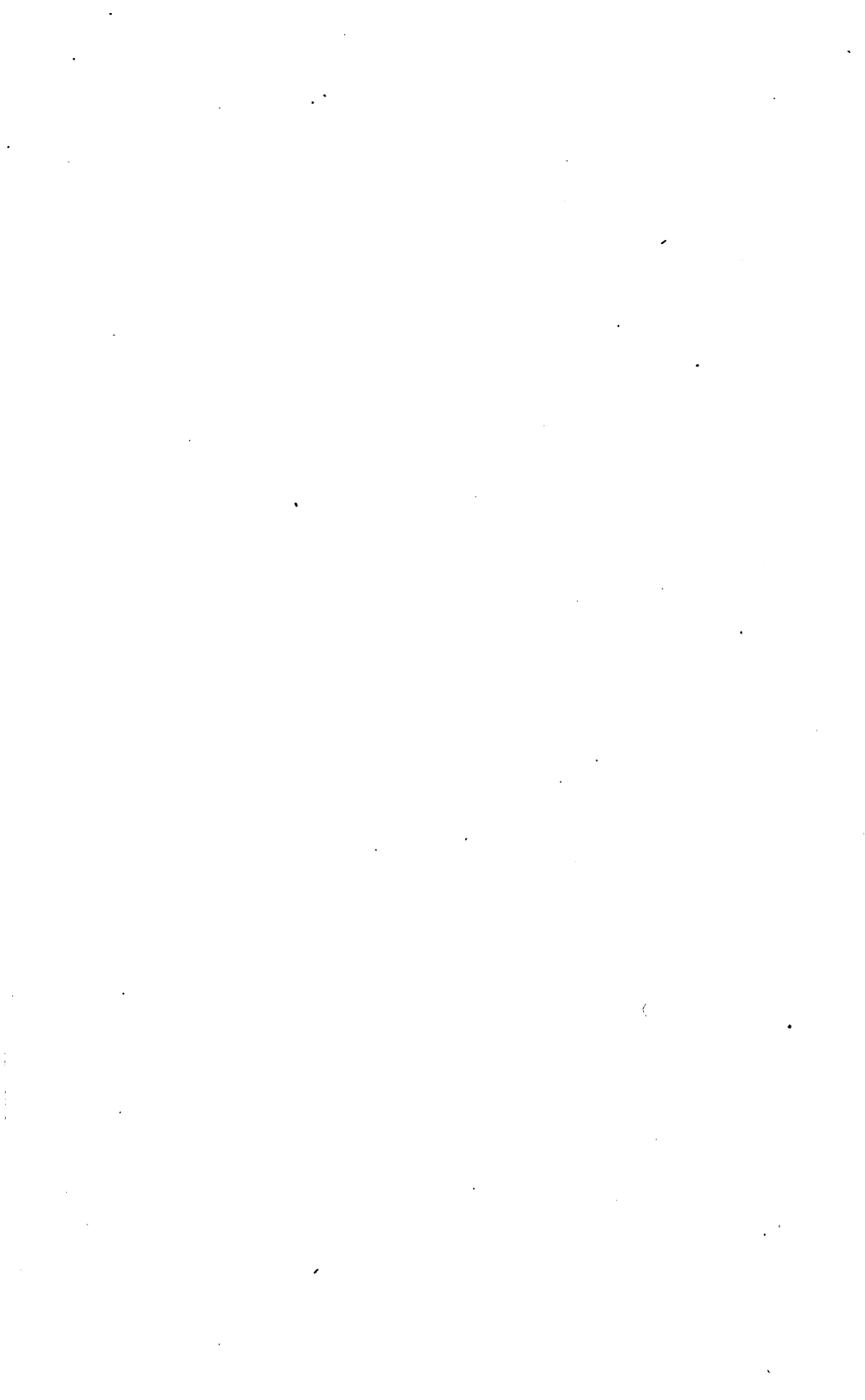
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